

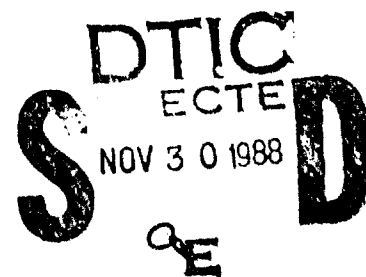
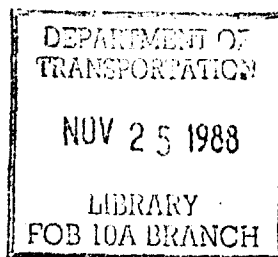


U.S. Department
of Transportation
Federal Aviation
Administration

FAA Statistical Handbook of Aviation

Calendar Year 1987

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U.S. Department
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Federal Aviation
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FAA Statistical Handbook of Aviation

Calendar Year 1987

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FAA Statistical Handbook of Aviation is a convenient source for historical data. It presents statistical information pertaining to the Federal Aviation Administration, the National Airspace System, Airports, Airport Activity, U.S. Civil Air Carrier Fleet, U.S. Civil Air Carrier Operating Data, Airmen, General Aviation Aircraft, Aircraft Accidents, Aeronautical Production & Import/Export.

Reporting period:	Calendar Year
Latest edition:	1987 data
Order from:	U.S. Government Printing Office or National Technical Information Service

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Date next publication is scheduled:	November 1989 (1988 data)
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Person to contact:	Patricia Beardsley
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U.S. Civil Airmen Statistics is an annual study of detailed airmen statistics. It contains calendar year statistics on pilot and nonpilots and the number of certificates issued.

Reporting period:	Calendar Year
Latest edition:	1987
Order from:	Management Standards & Statistics Division or National Technical Information Service

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Date next publication is scheduled:	March 1989 (1988 data)
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Person to contact:	Patricia Carter
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Census of U.S. Civil Aircraft is an annual publication that includes statistical data on the registered civil fleet, air carrier aircraft, and general aviation aircraft--both registered and active, detailed reports for general aviation aircraft by owner's state and county, and registered aircraft by make and model.

Reporting period:	Calendar Year
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Order from:	U.S. Government Printing Office, or National Technical Information Service
Date 1988 Information will be available:	May 1989
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Person to contact:	Patricia Beardsley

FAA Air Traffic Activity furnishes terminal and en route air traffic activity information (e.g., takeoffs & landings, flight plans filed) of the National Airspace System. The data is collected/compiled from the FAA-operated Airport Traffic Control Towers, Air Route Traffic Control Centers, Flight Service Stations, Approach Control Facilities, and FAA Contract-towered airports.

Reporting period:	Fiscal Year
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Date next publication is scheduled:	May 1989 (1988 data)
Person to contact:	Nancy Trembley

General Aviation Activity and Avionics Survey publication presents the results of the general aviation activity and avionics survey conducted to obtain information on the activity and avionics of the U.S. registered general aviation aircraft fleet. The survey reveals estimated flying time of the active general aviation aircraft, and other statistics by manufacturer/model group, aircraft type, state and region of based aircraft, and primary use. Estimates are included on fuel consumption, lifetime airframe hours, avionics, and engine hours.

Reporting period:	Calendar Year
Latest edition:	1986 data
Order from:	Government Printing Office or National Technical Information Service

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will be available: November 1988

Date next publication
is available: December 1988 (1987 data)

Person to contact: Shung-Chai Huang

FAA Directory is published twice a year, it contains six sections of data: Washington/Region/Center headquarters' managers; field facilities' managers/supervisors; regional area maps/organizational charts; alphabetical listing; special interest groups; and glossary.

Latest edition: April 1988
Order from: U.S. Government Printing Office

Date next publication
is scheduled: November 1988

Person to contact: Nancy Trembley

Airport Activity Statistics of Certificated Route Air Carriers is a joint publication of the Federal Aviation Administration (FAA) and the Research & Special Programs Administration (RSPA). RSPA furnishes airport activity data on certificated route air carriers; FAA organizes/publishes it. Included in the data are passenger enplanements, tons of enplaned freight, express and mail. Both scheduled/nonscheduled service and domestic/international operations shown by airport and carrier are also included. Breakdown of data includes departures/enplanements/cargo/mail by airport, carrier & type of operation, and type of aircraft.

Reporting period: Calendar Year
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Date 1988 Information
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Date next publication
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Person to contact: Patricia Beardsley

PREFACE

The FAA Statistical Handbook of Aviation is published annually by the Federal Aviation Administration (FAA). Its prime purpose is to serve as a convenient source for historical data and to assist in evaluating progress.

The Handbook should provide a valuable source of information for the Department of Transportation (DOT), operating offices of the FAA, the Research and Special Programs Administration (RSPA), and other government agencies, as well as nongovernment organizations interested in aviation.

Chapter I deals with the FAA and its functions. This section also includes a comparison of the agency's appropriations and the agency's personnel complement.

National Airspace System data reflecting the fiscal and calendar year workload of the FAA air traffic facilities--terminal and en route--are contained in Chapter II. This chapter contains air traffic activity reported by FAA-operated airport traffic control towers, air route traffic control centers, and domestic and international flight service stations.

Selected statistics concerning the Nation's airport facilities are presented in Chapter III by state within FAA regions. In addition to the total count of these facilities, this chapter includes statistics pertaining to the physical characteristics (paved vs. unpaved runways, lighted vs. unlighted runways, length of runways, etc.), and funds allocated for airport development.

Airport passenger, cargo, and freight statistics shown in Chapter IV were prepared from data published in Airport Activity Statistics of Certificated Route Air Carriers, which is issued jointly by the RSPA and the FAA. This chapter covers the activity of the large scheduled certificated air carriers only.

The U.S. civil air carrier fleet is described in detail in Chapter V. These statistics were developed from monthly Aircraft/Engine Utilization Reports submitted by the air carrier operators. The aircraft population discussed here is not an inventory of the aircraft owned by the air carriers, but represents the aircraft reported in air carrier use during the last quarter of the year.

U.S. civil air carrier operating data--revenue passenger miles flown, available seat-miles and enplanements, revenue ton-miles flown, revenue aircraft miles flown, and operating revenues and expenses of the large certificated air carriers--are presented in Chapter VI. These statistics were obtained from forms submitted by the large certificated route air carriers to the RSPA. Also included in Chapter VI are traffic statistics for the small certificated and commuter air carriers.

The airmen data shown in Chapter VII were obtained from official airmen certification records maintained by the FAA's Mike Monroney Aeronautical Center in Oklahoma City, Oklahoma. These data included the number of airmen as of the end of each year and the number of certificates issued during the year.

The general aviation aircraft data presented in Chapter VIII were collected from the General Aviation Activity and Avionics Survey. Numbers of active aircraft and hours flown are shown for each aircraft type, use category and state.

Aircraft accidents, both air carrier and general aviation, appear in Chapter IX. These data were furnished by the National Transportation Safety Board (NTSB).

Aeronautical production and imports/exports are summarized in Chapter X. The production information was obtained from reports submitted to the U.S. Bureau of the Census by all known producers of complete aircraft and aircraft engines. Import/export data were obtained through Aerospace Industries Association, Inc. based on Bureau of the Census data from special monthly compilation of annual reports FT-446 and FT-410, respectively.

The FAA Statistical Handbook of Aviation is prepared by the Statistical Analysis Branch, Management Standards and Statistics Division, Office of Management Systems, with the cooperation of other FAA offices. Special appreciation is expressed to the Research and Special Programs Administration, U.S. Bureau of the Census, the National Transportation Safety Board, and many municipalities and private organizations for their assistance.

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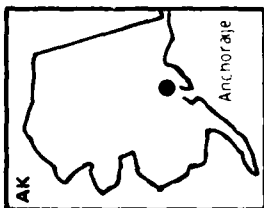
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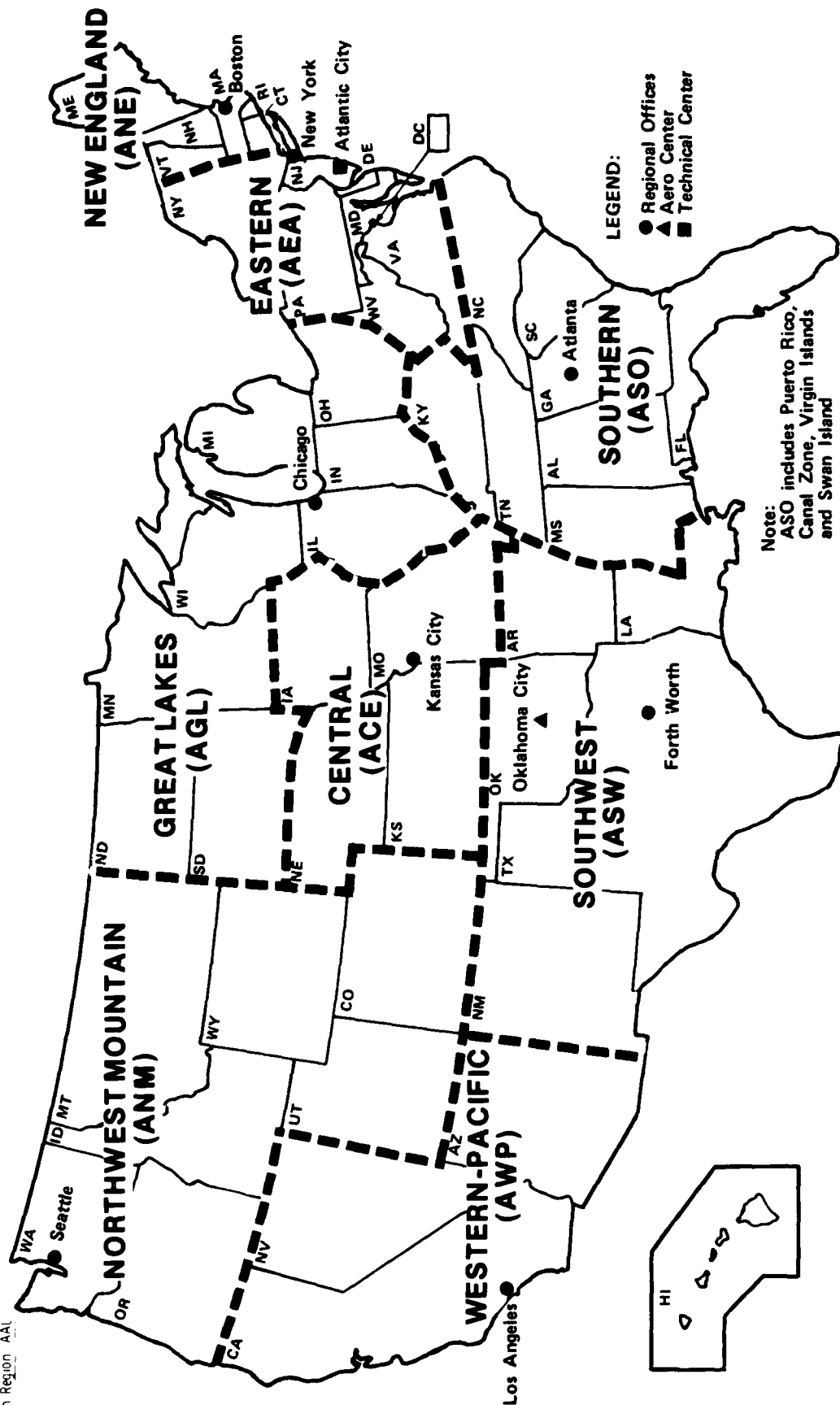
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Alaskan Region AAL

FAA REGIONAL BOUNDARIES

Includes Locations of Regional Headquarters and Centers



I. THE FEDERAL AVIATION ADMINISTRATION

The Department of Transportation Act of 1966 established a new executive department known as the Department of Transportation. The general welfare, economic growth, stability, and security of the nation pointed to the need for the development of national transportation policies and programs effectively utilizing the nation's transportation resources. The Act provided for inclusion of the Federal Aviation Agency in the Department as the Federal Aviation Administration.

Directed by an Administrator, who is appointed by the President, by and with the advice and consent of the Senate, the FAA has as its primary function the fostering of the development and safety of American aviation. More specifically, the FAA is responsible for developing the major policies necessary to guide the long-range growth of civil aviation; modernizing the air traffic control system; establishing in a single authority the essential management functions necessary to support the common needs of civil and military operations; providing for the most effective and efficient use of the airspace over the United States; and for the rulemaking responsibilities relative to these functions.

The FAA constructs, operates, and maintains the National Airspace System and the facilities which are a part of the system; it allocates and regulates the use of the airspace; it ensures adequate separation between aircraft operating in controlled airspace; and, through research and development programs, it provides new systems and equipment for improving utilization of the nation's airspace.

The Federal Aid to Airports Program (FAAP) authorized the FAA to make grants of federal funds to sponsors for airport development and for advanced planning and engineering. Under FAAP, approximately \$1.2 billion were granted by FAA to airport sponsors for airport development purposes from

1947 through 1970. FAAP was superseded by the Airport Development Act of 1970, the Airport and Airway Improvement Act of 1982, and the Airport and Airway Safety and Capacity Expansion Act of 1987 which amended the Airport and Airway Improvement Act of 1982.

The FAA prescribes and administers rules and regulations concerning airmen competency, aircraft airworthiness, and air traffic control. It promotes safety through certification of airmen, aircraft, and flight and aircraft maintenance schools. It reviews the design, structure, and performance of new aircraft to insure the safety of the flying public.

Services provided by FAA toward the development of aviation and air commerce include:

Dissemination of news and information on civil aviation generally.

Publication of flight information data for pilots.

Technical aviation assistance to other governments, operation of overseas civil aviation missions, and the aviation training of foreign nationals.

Development of medical standards for airmen through aviation medical research.

Research and development in the field of aeronautics and electronics.

Other activities required to encourage and foster the worldwide development of civil aviation and air commerce.

Policies governing these programs are developed in the Washington headquarters of FAA, and are executed by field employees.

The FAA has nine regional offices strategically located throughout the United States as well as the FAA Technical Center at Atlantic City, New Jersey, and the Mike Monroney Aeronautical Center at Oklahoma City, Oklahoma.

TABLE 1.1

FAA BUDGET AUTHORITY
FISCAL YEARS 1984 - 1988
(\$ IN MILLIONS)

Appropriation	1984	1985	1986	1987	1988
Total	<u>4,642.7^(R)</u>	<u>5,355.8^(R)</u>	<u>4,869.3^(R)</u>	<u>4,946.1^R</u>	<u>6,147.0</u>
Operations (General Fund)	2,530.0 ^(R)	1,589.4 ^(R)	2,237.4	2,302.8 ^R	2,322.6
Operations (Airport and Airway Trust Fund)	—	1,110.0	426.8 ^(R)	621.2 ^R	827.4
Headquarters Administration	56.9	0.0 ^{(a)(R)}	60.3	35.1	35.5
Facilities and Equipment (Airport and Airway Trust Fund)	750.0	1,358.0 ^(R)	895.1	804.6	1,108.1
Grants-in-Aid for Airports (Airport and Airway Trust Fund)					
Contract Authority (Obligation Limitation)	993.5 (800.0)	987.0 (925.0)	973.3 (885.2)	1,017.2 (1,025.0)	1,700.0 (1,268.7)
Research, Engineering and Development (Airport and Airway Trust Fund)	263.5	265.0	237.1 ^(R)	141.7	153.4
Metropolitan Washington Airports	48.8 ^(R)	46.4 ^(R)	39.3	23.5 ^(b)	0.0 ^(b)

^a Headquarters Administration included in the Operations appropriation in fiscal year 1985.

^b Metropolitan Washington Airports transferred to Regional Authority, June 1987.

TABLE 1.2

FAA CIVILIAN EMPLOYEES AT END OF FISCAL AND
CALENDAR YEARS 1978 - 1987

(SEE NOTE BELOW)

Date	FAA Total Paid	Full Time Permanent			
		Washington Office	Washington Field ^a	Other Field	Total
9/78	57,494	2,303	909	52,015	55,227
12/78	57,005	2,272	921	51,747	54,940
9/79	56,435	2,124	888	51,432	54,444
12/79	56,394	2,144	922	51,498	54,564
9/80	55,361	2,060	918	50,560	53,538
12/80	55,340	2,069	942	50,500	53,511
9/81	42,590	1,951	185	39,123	41,259
12/81	44,640	1,940	190	40,378	42,508
9/82	46,511	1,868	173	42,929	44,970
12/82	46,897	1,866	168	43,415	45,449
9/83	46,922	1,906	155	45,317	45,317
12/83	46,993	1,911	144	43,266	45,321
9/84	47,216	1,943	116	43,733	45,792
12/84	47,178	1,959	130	43,810	45,899
9/85	47,138	2,012	132	43,651	45,795
12/85	47,245	2,033	136	43,660	45,829
9/86	46,682	2,022	140	43,477	45,639
12/86	46,809	2,050	144	43,438	45,632
9/87	47,897	2,142	152	44,204	46,498
12/87	47,907	2,156	157	44,148	46,461

^a Beginning with 1981 employees from National and Dulles Airports are reported under "Other Field".

NOTE: FAA Total Paid includes full-time, part-time, and intermittent. Full-time includes permanent paid full-time employees who occupy permanent positions.

Washington Office includes all paid Washington headquarters employees whose duty station is Washington, D.C.

Washington Field includes all paid Washington, D.C. employees (e.g., National and Dulles Airports, in other states, or foreign countries).

Other Field includes all paid employees whose duty stations are in the regions or centers.

TABLE 1.3

NUMBER OF TOTAL PAID FAA EMPLOYEES AS OF DECEMBER 31, 1978 - 1987

Occupation	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Air Traffic Control Specialists	27,688	27,783	27,190	17,418	20,906	21,271	21,759	22,114	22,036	22,651
Electronics Technicians	9,423	9,209	8,871	8,432	8,031	7,633	7,229	6,856	6,600	6,788
Aviation Safety Inspectors	1,999	2,016	2,038	1,942	1,835	1,805	1,945	1,897	2,204	2,350
Engineers	2,576	2,501	2,436	2,274	2,238	2,313	2,419	2,450	2,417	2,579
All Others	15,319	14,685	14,805	14,574	13,887	13,971	13,626	13,928	13,552	13,539
Total Employment	57,005	56,394	55,340	44,640	46,897	46,993	47,178	47,245	46,809	47,907

II. THE NATIONAL AIRSPACE SYSTEM

This chapter furnishes terminal and en route air traffic activity information of the National Airspace System for fiscal and calendar years. The data have been reported by the FAA-operated Airport Traffic Control Towers, Air Route Traffic Control Centers, and flight service facilities (Flight Service Stations, Automated Flight Service Stations and International Flight Service Stations). These reports are used as a guide in determining the need for larger or additional facilities, and possible changes in the number of personnel at existing facilities.

Terminal information includes airport operations, instrument operations, and instrument approaches. Airport operations are landings and takeoffs reported by towers by aviation categories--air carrier, air taxi, general aviation, and military. Instrument operations are takeoffs, landings, and overflights of aircraft operating in accordance with an IFR flight plan. Instrument approaches are approaches made to an airport by an aircraft on an IFR flight plan under IFR weather conditions.

Data for Air Route Traffic Control Centers (ARTCCs) include departures, overflights, and aircraft handled.

Activities for Flight Service Stations, Automated Flight Service Stations and International Flight Service Stations include flight plans originated airport advisories, pilot briefs, and aircraft contacted.

More detailed data pertaining to activity of these facilities may be found in FAA Air Traffic Activity.

TABLE 2.1*

U.S. AIR ROUTE AIRWAY MILEAGE: 1978 - 1987

(Contiguous 48 States)

December 31	Very High Frequency VOR/VORTAC		
	Low Altitude		Jet Routes
	Direct	Alternate	
1978	155,242	31,235	134,709
1979	157,853	31,625	135,920
1980	159,008	31,409	137,503
1981	160,823	29,137	138,550
1982	167,637	20,067	138,438
1983	169,471	15,359	139,477
1984	171,873	12,188	141,199
1985	182,182	3,306	142,658
1986	184,229	905	146,869
1987	184,644	543	147,678

* Mileage shown in nautical miles based on National Ocean Survey figures.

TABLE 2.2

FAA AIR ROUTE FACILITIES AND SERVICES: 1978 - 1987

December 31	VOR/ VORTAC	Nondirectional Radio Beacons	Air Route Traffic Control Centers	Airport Traffic Control Towers	Flight Service Stations	Inter- national Flight Service Stations	Instrument Landing Systems	Radar Equipment
1978	1,020	988	25	494	319	6	698	185
1979	1,028	1,015	25	499	318	6	753	192
1980	1,037	1,055	25	502	317	6	796	192
1981	1,033	1,123	25	501	316	6	840	199
1982	1,029	1,143	25	492	316	6	884	197
1983	1,032	1,183	25	494	316	5	934	197
1984	1,035	1,211	25	497	310	5	955	197
1985	1,039	1,222	25	500	302	4	968	198
1986	1,043	1,239	25	686	293	3	977	312
1987	1,045 ^a	1,262 ^b	25 ^c	686 ^d	253	3	1,111 ^e	312 ^f

^a Includes 74 nonfederal and 37 military.^b Includes 891 nonfederal and 66 military.^c Includes 3 military combined center/radar approach control facilities (CERAP).^d Includes 58 nonfederal and 209 military.^e Includes 18 Landing Directional Aids (LDA), 123 nonfederal, 20 military, 178 partial, 7 Interim Microwave

Landing Systems (ISMLS), and 36 Simplified Direction Finders (SDF).

^f Includes FAA, military and non federal

FISCAL YEARS
(TABLES 2.3 - 2.10)

TABLE 2.3

AIR TRAFFIC ACTIVITY AT AIR ROUTE TRAFFIC CONTROL CENTERS, BY AVIATION CATEGORY
FISCAL YEARS 1983 - 1987

	AIRCRAFT HANDLED									
	Total		Air Carrier		Air Taxi		General Aviation		Military	
	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
<u>IFR</u>										
Aircraft	35,794,403	+5%	17,115,080	+7%	5,283,267	+5%	8,102,631	+1%	5,293,425	+4%
Handled ¹	34,177,045	+4%	16,009,336	+9%	5,020,069	+5%	8,054,741	-3%	5,092,899	+3%
	32,708,709	+4%	14,627,050	+4%	4,795,199	+10%	8,329,512	+1%	4,956,948	+2%
	31,615,486	+8%	14,110,659	+6%	4,369,149	+18%	8,267,069	+6%	4,868,609	+7%
	29,361,418	+5%	13,295,889	+5%	3,702,708	+11%	7,796,554	+4%	4,566,267	+6%
<u>IFR</u>										
Departures	13,768,267	+4%	6,043,020	+6%	2,458,714	+5%	3,392,926	-(*)	1,873,607	+5%
	13,245,340	+4%	5,719,626	+9%	2,335,006	+5%	3,398,856	-4%	1,791,852	+2%
	12,784,292	+4%	5,261,858	+5%	2,232,782	+9%	3,535,541	+1%	1,754,111	+2%
	12,290,214	+9%	5,030,352	+8%	2,048,462	+17%	3,491,714	+6%	1,719,686	+6%
	11,280,546	+5%	4,662,715	+5%	1,749,840	+11%	3,278,692	+4%	1,589,259	+5%
<u>IFR Overs</u>										
	8,257,869	+7%	5,029,040	+10%	365,839	+5%	1,316,779	+5%	1,546,211	+2%
	7,686,365	+8%	4,570,084	+11%	350,057	+6%	1,257,029	-(*)	1,509,195	+4%
	7,140,125	+2%	4,103,334	+1%	329,635	+21%	1,258,430	-2%	1,448,726	-1%
	7,035,058	+3%	4,049,955	+2%	272,225	+34%	1,283,641	+4%	1,429,237	+3%
	6,800,326	+5%	3,970,459	+4%	203,028	+17%	1,239,170	+5%	1,387,669	+9%

(*) Less than 0.5 percent.

¹ The number of IFR Departures multiplied by two, plus the number of IFR Overs.

TABLE 2.4

AIR TRAFFIC ACTIVITY AT AIRPORT TRAFFIC CONTROL TOWERS, BY AVIATION CATEGORY
FISCAL YEARS 1983 - 1987

AIRPORT OPERATIONS											
	Year	Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
<u>Total Airport Operations</u>	1987	60,976,559	+3%	13,062,061	+6%	7,347,057	+6%	37,830,524	+2%	2,736,917	+4%
	1986	58,956,464	+2%	12,300,371	+9%	6,915,478	-(*)	37,100,657	-(*)	2,639,958	+4%
	1985	57,937,465	+2%	11,281,308	+4%	6,916,241	+5%	37,191,215	+1%	2,548,701	+4%
	1984	56,958,937	+7%	10,879,575	+12%	6,607,453	+13%	37,021,894	+5%	2,450,015	-1%
	1983	53,320,931	+5%	9,673,951	+7%	5,854,910	+15%	35,327,905	+3%	2,464,165	+5%
<u>Itinerant Operations</u>	1987	43,869,898	+3%	13,062,061	+6%	7,347,057	+6%	22,078,782	+1%	1,381,998	+2%
	1986	42,515,777	+2%	12,300,371	+9%	6,915,478	-(*)	21,942,188	-2%	1,357,740	+5%
	1985	41,864,894	+2%	11,281,308	+4%	6,916,241	+5%	22,373,031	+(*)	1,294,314	+5%
	1984	41,071,969	+8%	10,879,575	+12%	6,607,453	+13%	22,348,163	+5%	1,236,778	+3%
	1983	38,022,753	+6%	9,673,951	+7%	5,854,910	+15%	21,293,140	+3%	1,200,752	+5%
<u>Local Operations</u>	1987	17,106,661	+4%	—	—	—	—	15,751,742	+4%	1,354,919	+6%
	1986	16,440,687	+2%	—	—	—	—	15,158,469	+2%	1,282,218	+2%
	1985	16,072,571	+1%	—	—	—	—	14,818,184	+1%	1,254,387	+4%
	1984	15,886,968	+4%	—	—	—	—	14,673,731	+5%	1,213,237	-4%
	1983	15,298,178	+4%	—	—	—	—	14,034,765	+4%	1,263,413	+5%

(*) Less than 0.5 percent.

TABLE 2.5

AIR TRAFFIC ACTIVITY AT FAA FACILITIES, BY AVIATION CATEGORY
FISCAL YEARS 1983 - 1987

	Year	Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
<u>Total Instrument Operations</u>	1987	43,407,628	+7%	13,730,330	+8%	7,320,676	+10%	17,914,358	+7%	4,442,264	+3%
	1986	40,466,365	+5%	12,752,823	+9%	6,626,572	+4%	16,787,756	+2%	4,299,214	+4%
	1985	38,702,396	+4%	11,751,323	+4%	6,390,297	+7%	16,428,676	+3%	4,132,100	+4%
	1984	37,327,046	+10%	11,333,489	+12%	5,997,079	+12%	16,023,211	+9%	3,973,267	+4%
	1983	34,039,181	+8%	10,126,868	+6%	5,346,419	+5%	14,755,146	+6%	3,810,748	+6%
<u>Total Instrument Approaches</u>	1987	2,306,401	-10%	870,189	-14%	483,441	-4%	818,163	-12%	134,608	-3%
	1986	2,570,631	+17%	1,003,540	+31%	501,474	+8%	927,007	+11%	138,610	+9%
	1985	2,196,181	-3%	767,729	-1%	463,204	-4%	837,663	-6%	127,585	-1%
	1984	2,273,516	+12%	773,385	+15%	483,389	+15%	887,424	+8%	129,318	+6%
	1983	2,033,427	-1%	673,229	-5%	420,161	+8%	818,216	-2%	121,821	+1%
<u>Total Instrument Approaches at Control Facilities</u> ¹	1987	2,123,347	-11%	853,670	-14%	423,214	-4%	723,447	-13%	123,016	-3%
	1986	2,384,088	+17%	967,835	+31%	440,339	+8%	829,273	+11%	126,641	+10%
	1985	2,029,327	-3%	754,812	-1%	409,177	-6%	750,387	-5%	114,951	+6%
	1984	2,091,167	+11%	759,595	+16%	433,144	+14%	790,230	+7%	108,198	-3%
	1983	1,887,313	-2%	656,506	-5%	378,313	+7%	740,400	-5%	112,094	+1%

(*) Less than 0.5 percent.

¹ Excludes instrument approaches provided by Air Route Traffic Control Centers.

TABLE 2.6

AIR TRAFFIC ACTIVITY AT FLIGHT SERVICE FACILITIES
FISCAL YEARS 1983 - 1987

	Year	Flight Services ¹		Flight Plans Originated						Airport Advisories		Pilot Briefs	
		Total	Annual Change	Total	Annual Change	IFR-DVFR	Annual Change	VFR	Annual Change	Total	Annual Change	Total	Annual Change
<u>Flight Service Stations</u>	1987	47,747,493	-3%	7,643,574	+2%	5,943,542	+1%	1,700,032	+5%	2,414,289	-7%	12,750,575	-5%
	1986	48,982,535	-7%	7,517,796	-6%	5,896,633	-6%	1,621,163	-5%	2,595,833	-8%	13,381,434	-8%
	1985	52,866,048	-4%	7,985,889	-2%	6,287,882	-2%	1,698,007	-4%	2,826,294	-5%	14,578,867	-4%
	1984	54,779,576	-4%	8,176,075	+(*)	6,405,209	+2%	1,770,866	-4%	2,963,968	-5%	15,141,954	-6%
	1983	56,878,249	-9%	8,138,183	-4%	6,287,319	-4%	1,850,864	-6%	3,105,482	-14%	16,030,290	-10%
<u>International Flight Service Stations</u>	1987	1,438,354	-8%	315,299	-1%	151,314	+6%	163,985	-6%	8,039	-11%	241,320	-12%
	1986	1,562,753	-25%	317,233	-17%	142,558	-21%	174,675	-13%	9,062	-3%	274,015	-37%
	1985	2,097,001	-1%	380,168	+3%	179,428	-4%	200,740	+9%	9,339	-41%	437,432	+2%
	1984	2,121,709	-3%	370,513	-2%	185,954	+3%	184,559	-7%	15,883	+31%	430,352	+3%
	1983	2,178,611	-5%	378,628	-7%	179,994	-3%	198,634	-10%	12,143	-53%	417,698	-(*)

(*) Less than 0.5 percent.

¹ The sum of flight plans originated and pilot briefs, multiplied by two, plus the number of aircraft contacted (see Table 2.7).
No credit is allowed for airport advisories.

TABLE 2.7

AIRCRAFT CONTACTED AT FLIGHT SERVICE FACILITIES, BY AVIATION CATEGORY
FISCAL YEARS 1983 - 1987

	Year	AIRCRAFT CONTACTED									
		Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
<u>Flight Service Stations</u>	1987	6,959,195	-3%	354,388	-5%	948,407	-5%	5,208,721	-3%	447,679	+4%
	1986	7,184,075	-7%	372,223	-4%	998,498	-9%	5,382,619	-8%	430,735	+1%
	1985	7,738,536	-5%	386,479	-7%	1,101,020	+(*)	5,826,387	-6%	424,650	+1%
	1984	8,143,518	-5%	415,984	+5%	1,097,332	+1%	6,208,177	-6%	422,025	-1%
	1983	8,541,303	-12%	396,442	-8%	1,086,094	-9%	6,633,821	-14%	424,946	-1%
<u>IFR-DWR</u>	1987	2,042,270	-2%	331,368	-4%	423,643	-2%	1,129,239	-3%	158,020	+9%
	1986	2,087,519	-6%	345,735	-1%	432,683	-6%	1,163,883	-7%	145,218	-3%
	1985	2,211,819	-3%	349,104	-3%	460,369	+(*)	1,253,174	-5%	149,172	+3%
	1984	2,280,781	+1%	358,756	+12%	459,039	+5%	1,317,446	-2%	145,538	+4%
	1983	2,250,370	-11%	321,699	-8%	439,243	-6%	1,349,624	-14%	139,804	+4%
<u>VFR</u>	1987	4,916,925	-4%	23,020	-13%	524,764	-7%	4,079,482	-3%	289,659	+1%
	1986	5,096,556	-8%	26,488	-29%	565,815	-12%	4,218,736	-8%	285,517	+4%
	1985	5,526,717	-6%	37,375	-35%	640,651	+(*)	4,573,213	-6%	275,476	-(*)
	1984	5,862,737	-7%	57,226	-23%	638,293	-1%	4,890,731	-7%	276,487	-3%
	1983	6,290,933	-13%	74,743	-9%	646,851	-11%	5,284,197	-13%	285,142	-3%

(*) Less than 0.5 percent.

TABLE 2.7 (continued)

AIRCRAFT CONTACTED AT FLIGHT SERVICE FACILITIES, BY AVIATION CATEGORY

FISCAL YEARS 1983 - 1987

	Year	AIRCRAFT CONTACTED									
		Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
<u>International Flight Service Stations</u>	1987	325,116	-15%	11,251	+6%	99,531	-32%	207,605	-4%	6,729	+3%
	1986	380,257	-18%	10,649	+16%	147,159	-5%	215,941	-26%	6,508	-14%
	1985	461,801	-11%	9,142	-86%	154,434	+7%	290,684	-3%	7,541	-29%
	1984	519,979	-11%	66,430	-44%	144,390	-4%	298,528	+1%	10,631	-49%
	1983	585,959	-8%	118,511	-15%	150,420	-1%	296,198	-10%	20,830	+11%
<u>IFR-DVFR</u>	1987	36,995	-1%	10,712	+3%	4,171	+40%	19,461	-10%	2,651	+17%
	1986	37,221	-3%	10,415	+17%	2,979	-42%	21,562	-2%	2,265	-10%
	1985	38,490	-59%	8,927	-86%	5,121	+20%	21,935	+19%	2,507	-59%
	1984	94,745	-39%	65,998	-44%	4,255	+23%	18,394	-4%	6,098	-62%
	1983	156,438	-6%	117,854	-13%	3,470	+18%	19,062	-21%	16,052	+274%
<u>VFR</u>	1987	288,121	-16%	539	+30%	95,360	-34%	188,144	-3%	4,078	-4%
	1986	343,036	-19%	234	+9%	144,180	-3%	194,379	-28%	4,243	-16%
	1985	423,311	-1%	215	-50%	149,313	-7%	286,749	-4%	5,034	+11%
	1984	425,234	-1%	432	-34%	140,135	-5%	280,134	+1%	4,533	-5%
	1983	429,521	-9%	657	-87%	146,950	-1%	277,136	-9%	4,778	-67%

TABLE 2.8

TOP 25 FAA-OPERATED AIRPORT TRAFFIC CONTROL TOWERS, BY RANK ORDER OF TOTAL OPERATIONS
AND BY AVIATION CATEGORY INCLUDING AIR CARRIER RANK
FISCAL YEAR 1987

Tower	Total Operations Rank		Air Carrier Rank		Air Taxi	General Aviation	Military
Atlanta International	1	801,833	2	579,898	190,742	29,642	1,551
Chicago O'Hare Int'l	2	796,609	1	703,763	54,128	35,245	3,473
Los Angeles International	3	655,189	4	416,063	170,765	63,766	4,595
Dallas Ft. Worth Reg'l	4	609,300	3	492,591	94,841	20,774	1,094
Santa Ana	5	526,798	56	61,630	26,142	436,408	2,618
Denver Stapleton Int'l	6	521,608	5	369,024	108,318	41,772	2,494
Van Nuys	7	492,936	266	22	422	488,567	3,925
San Francisco	8	451,132	6	329,196	82,909	36,344	2,683
Long Beach	9	438,496	120	13,748	2,387	419,907	2,454
Boston Logan	10	435,923	13	248,048	137,913	49,691	271
Phoenix Sky Harbor Int'l	11	435,836	14	244,309	67,297	117,328	6,902
St. Louis Int'l	12	426,828	7	280,092	87,652	47,264	11,820
Philadelphia Int'l	13	412,083	25	188,091	158,492	64,367	1,133
Detroit Metro Wayne Co.	14	411,628	10	267,067	77,563	66,663	335
Oakland International	15	397,658	45	80,608	41,256	274,440	1,352
Honolulu	16	389,035	18	214,028	65,993	85,090	23,924
Las Vegas McCarran	17	388,962	22	192,770	77,017	113,129	6,046
Pontiac	18	386,292	238	343	5,662	379,584	703
Memphis Int'l	19	384,049	17	217,145	71,746	89,988	5,170
Minneapolis St. Paul Int'l	20	383,420	11	265,699	39,422	72,739	5,560
Newark	21	383,357	8	278,726	76,436	27,759	436
Seattle Boeing	22	377,407	183	4,602	15,682	354,362	2,761
Pittsburgh Greater Int'l	23	371,221	15	241,212	94,542	28,239	7,228
La Guardia	24	366,013	9	267,412	68,925	29,175	501
Miami International	25	363,693	11	250,418	47,759	64,875	641

(NA) Not applicable.

NOTE: Total Operations rank was based on total air traffic activity at 400 FAA-Operated Towers.

Air Carrier operations rank was based on air carrier activity at 303 FAA-Operated Towers.
Not all FAA-Operated Towers handle air carrier operations.

TABLE 2.9

TOP 25 FAA-OPERATED AIRPORT TRAFFIC CONTROL TOWERS, BY RANK ORDER OF AIR CARRIER OPERATIONS
AND BY AVIATION CATEGORY INCLUDING TOTAL OPERATIONS RANK
FISCAL YEAR 1987

Tower	Air Carrier Rank	Air Taxi	General Aviation	Military	Total Operations Rank
Chicago O'Hare Int'l	1 703,763	54,128	35,245	3,473	2 796,609
Atlanta International	2 579,898	190,742	29,642	1,551	1 801,833
Dallas Ft. Worth Reg'l	3 492,591	94,841	20,774	1,094	4 609,300
Los Angeles Int'l	4 416,063	170,765	63,766	4,595	3 655,189
Denver Stapleton Int'l	5 369,024	108,318	41,772	2,494	6 521,608
San Francisco	6 329,196	82,909	36,344	2,683	8 451,132
St. Louis Int'l	7 280,092	87,652	47,264	11,820	12 426,828
Newark	8 278,726	76,436	27,759	436	21 383,357
La Guardia	9 267,412	68,925	29,175	501	24 366,013
Detroit Metro Wayne County	10 267,067	77,563	66,663	335	14 411,628
Minneapolis St. Paul Int'l	11 265,699	39,422	72,739	5,560	20 383,420
Miami International	12 250,418	47,759	64,875	641	25 363,693
Boston Logan	13 248,048	137,913	49,691	271	10 435,923
Phoenix Sky Harbor Int'l	14 244,309	67,297	117,328	6,902	11 435,836
Pittsburgh Greater Int'l	15 241,212	94,542	28,239	7,228	23 371,221
Houston Intercontinental	16 223,833	27,789	49,832	1,878	32 303,332
Memphis International	17 217,145	71,746	89,988	5,170	19 384,049
Honolulu	18 214,028	65,993	85,090	23,924	16 389,035
John F. Kennedy Int'l	19 205,954	78,803	26,030	714	30 311,501
Cincinnati Greater	20 203,159	2,280	25,181	281	61 230,901
Washington Dulles Int'l	21 193,149	27,608	70,058	5,124	34 295,939
Las Vegas McCarran	22 192,770	77,017	113,129	6,046	17 388,962
Orlando Int'l Airport	23 192,610	20,649	35,492	2,851	44 251,602
Washington National	24 188,933	60,098	74,890	447	29 324,368
Philadelphia Int'l	25 188,091	158,492	64,367	1,133	13 412,083

NOTE: Total Operations rank was based on total air traffic activity at 400 FAA-Operated Towers.

Air Carrier operations rank was based on air carrier activity at 303 FAA-Operated Towers.
Not all FAA-Operated Towers handle air carrier operations.

TABLE 2.10

TOTAL FAA AIR TRAFFIC ACTIVITY BY REGION AND STATE, AND BY FAA-OPERATED TOWERS,
AIR ROUTE TRAFFIC CONTROL CENTERS, FLIGHT SERVICE STATIONS, AND INTERNATIONAL
FLIGHT SERVICE STATIONS
FISCAL YEAR 1967

FAA Region and State	Airport Operations (Towers)	Aircraft Handled (Centers)	Aircraft Contacted		Total Flight Services	
			Flight Service Stations	Int'l Flight Service Sta.	Flight Service Stations	Int'l Flight Service Sta.
TOTAL	<u>60,976,559</u>	<u>35,794,403</u>	<u>6,959,195</u>	<u>325,116</u>	<u>47,747,493</u>	<u>1,438,354</u>
Alaskan—Total	<u>1,082,409</u>	<u>425,534</u>	<u>970,083</u>	—	<u>2,460,805</u>	—
Central—Total	<u>2,408,813</u>	<u>1,746,151</u>	<u>483,892</u>	—	<u>3,163,298</u>	—
Iowa	459,186	—	75,663	—	682,795	—
Kansas	471,489	—	155,147	—	747,859	—
Missouri	1,170,940	1,746,151	147,232	—	1,245,770	—
Nebraska	307,198	—	105,850	—	486,874	—
Eastern—Total	<u>8,328,081</u>	<u>4,031,179</u>	<u>584,389</u>	—	<u>6,940,415</u>	—
Delaware	194,015	—	—	—	—	—
District of Columbia	324,368	2,267,578	58,915	—	751,481	—
Maryland	512,922	—	55,834	—	165,424	—
New Jersey	1,336,010	—	54,566	—	890,760	—
New York	2,557,528	1,763,601	133,550	—	1,933,942	—
Pennsylvania	1,926,065	—	152,976	—	1,909,686	—
Virginia	1,092,852	—	39,139	—	513,765	—
West Virginia	384,321	—	89,409	—	775,357	—
Great Lakes—Total	<u>9,731,124</u>	<u>7,962,650</u>	<u>882,425</u>	—	<u>7,815,737</u>	—
Illinois	2,799,661	2,344,914	120,403	—	1,330,315	—
Indiana	841,021	1,747,863	94,181	—	1,274,073	—
Michigan	2,086,324	—	127,597	—	1,193,685	—
Minnesota	1,033,632	1,605,010	110,021	—	564,791	—
North Dakota	424,091	—	61,916	—	381,012	—
Ohio	1,506,078	2,264,863	139,280	—	1,891,438	—
South Dakota	158,479	—	114,601	—	390,907	—
Wisconsin	881,838	—	114,416	—	789,516	—
New England—Total	<u>3,626,668</u>	<u>1,667,851</u>	<u>199,679</u>	—	<u>1,896,697</u>	—
Connecticut	913,519	—	72,769	—	1,149,605	—
Maine	243,296	—	51,538	—	342,258	—
Massachusetts	1,868,746	1,667,851	—	—	—	—
New Hampshire	245,984	—	47,489	—	224,379	—
Rhode Island	212,218	—	—	—	—	—
Vermont	142,905	—	27,883	—	182,455	—

TABLE 2.10 (Continued)

TOTAL FAA AIR TRAFFIC ACTIVITY BY REGION AND STATE, AND BY FAA-OPERATED TOWERS,
AIR ROUTE TRAFFIC CONTROL CENTERS, FLIGHT SERVICE STATIONS, AND INTERNATIONAL
FLIGHT SERVICE STATIONS
FISCAL YEAR 1987

FAA Region and State	Airport Operations (Towers)	Aircraft Handled (Centers)	Aircraft Contacted		Total Flight Services	
			Flight Service Stations	Int'l Flight Service Sta.	Flight Service Stations	Int'l Flight Service Sta.
Northwest Mountain—Total	<u>5,073,832</u>	<u>3,565,325</u>	<u>917,627</u>	—	<u>3,989,265</u>	—
Colorado	1,384,802	1,279,143	157,228	—	838,676	—
Idaho	346,763	—	52,571	—	259,215	—
Montana	295,723	—	163,420	—	500,620	—
Oregon	814,482	—	119,849	—	595,599	—
Utah	398,261	1,075,583	71,526	—	350,292	—
Washington	1,709,146	1,210,599	243,753	—	1,089,447	—
Wyoming	124,655	—	109,280	—	355,416	—
Southern—Total	<u>10,993,413</u>	<u>7,481,312</u>	<u>1,095,524</u>	<u>325,116</u>	<u>10,081,400</u>	<u>1,438,354</u>
Alabama	638,309	—	134,641	—	1,079,927	—
Florida	4,735,826	3,285,863	281,234	216,742	2,827,806	1,126,862
Georgia	1,552,200	2,350,555	139,022	—	1,467,134	—
Kentucky	707,810	—	107,612	—	678,826	—
Mississippi	321,512	—	62,343	—	455,821	—
North Carolina	1,114,624	—	143,749	—	1,374,637	—
Puerto Rico	285,474	—	—	108,374	—	311,492
South Carolina	457,309	—	90,188	—	911,174	—
Tennessee	1,016,731	1,844,894	136,735	—	1,286,075	—
Virgin Islands	163,618	—	—	—	—	—
Southwest—Total	<u>6,577,309</u>	<u>4,918,012</u>	<u>739,767</u>	—	<u>5,955,393</u>	—
Arkansas	351,225	—	97,372	—	607,948	—
Louisiana	1,086,081	—	48,695	—	674,981	—
New Mexico	375,620	1,458,525	143,497	—	570,801	—
Oklahoma	800,926	—	91,685	—	790,595	—
Texas	3,963,457	3,459,487	358,518	—	3,311,068	—
Western-Pacific—Total	<u>13,154,910</u>	<u>3,996,389</u>	<u>1,085,809</u>	—	<u>5,442,483</u>	—
American Samoa	12,381	—	—	—	—	—
Arizona	1,791,288	—	145,877	—	704,933	—
California	9,744,409	3,449,499	777,233	—	3,974,091	—
Guam	—	52,008	—	—	—	—
Hawaii	898,408	494,882	87,242	—	374,358	—
Nevada	683,703	—	75,457	—	389,101	—
Wake Island	24,721	—	—	—	—	—

CALENDAR YEARS
(Tables 2.11 - 2.18)

TABLE 2.11

AIR TRAFFIC ACTIVITY AT AIR ROUTE TRAFFIC CONTROL CENTERS, BY AVIATION CATEGORY

CALENDAR YEARS 1983 - 1987

		AIRCRAFT HANDLED									
Year		Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
<u>IFF Aircraft Handled¹</u>	1987	36,112,129	+5%	17,452,192	+8%	5,386,048	+5%	8,096,582	+1%	5,183,367	+1%
	1986	34,490,514	+4%	16,223,428	+9%	5,132,155	+6%	8,003,192	-3%	5,131,739	+3%
	1985	33,019,705	+3%	14,924,724	+4%	4,844,414	+7%	8,244,445	-1%	5,006,122	+2%
	1984	32,063,058	+7%	14,352,635	+7%	4,497,182	+16%	8,322,338	+4%	4,890,903	+6%
	1983	29,923,835	+6%	13,422,713	+5%	3,872,325	+13%	8,012,514	+6%	4,616,283	+5%
<u>IFF Departures</u>	1987	13,666,150	+4%	6,139,083	+6%	2,516,471	+6%	3,384,539	+(*)	1,826,057	+1%
	1986	13,338,657	+4%	5,782,325	+8%	2,380,794	+6%	3,370,374	-3%	1,805,164	+2%
	1985	12,875,279	+3%	5,356,781	+4%	2,255,695	+7%	3,492,284	-1%	1,770,519	+2%
	1984	12,493,511	+8%	5,137,502	+9%	2,102,711	+15%	3,524,746	+5%	1,728,552	+7%
	1983	11,528,978	+7%	4,717,719	+5%	1,827,619	+13%	3,372,655	+6%	1,610,985	+4%
<u>IFF Overs</u>	1987	8,379,829	+7%	5,174,026	+11%	347,106	-6%	1,327,504	+5%	1,531,193	+1%
	1986	7,813,200	+7%	4,658,778	+11%	370,567	+11%	1,262,444	+(*)	1,521,411	+4%
	1985	7,269,147	+3%	4,211,162	+3%	333,024	+12%	1,259,877	-1%	1,465,084	+2%
	1984	7,076,036	+3%	4,077,631	+2%	291,760	+34%	1,272,846	+1%	1,433,799	+3%
	1983	6,865,879	+5%	3,987,275	+3%	217,087	+16%	1,267,204	+6%	1,394,313	+6%

(*) Less than 0.5 percent.

¹ The number of IFF Departures multiplied by two, plus the number of IFR Overs.

TABLE 2.12

AIR TRAFFIC ACTIVITY AT AIRPORT TRAFFIC CONTROL TOWERS, BY AVIATION CATEGORY
CALENDAR YEARS 1983 - 1987

		AIRPORT OPERATIONS									
	Year	Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
<u>Total Airport Operations</u>	1987	61,004,284	+2%	13,092,751	+5%	7,553,620	+9%	37,575,141	-(*)	2,782,772	+5%
	1986	59,754,343	+3%	12,523,570	+9%	6,945,108	-(*)	37,637,377	+2%	2,648,288	+3%
	1985	58,021,521	+1%	11,450,621	+3%	6,949,436	+3%	37,044,465	-1%	2,576,999	+4%
	1984	57,755,928	+7%	11,110,294	+12%	6,735,875	+11%	37,437,851	+6%	2,471,908	+1%
	1983	53,857,965	+6%	9,907,170	+8%	6,059,840	+16%	35,429,952	+5%	2,461,003	+3%
<u>Itinerant Operations</u>	1987	44,039,814	+3%	13,092,751	+5%	7,553,620	+9%	21,993,252	-(*)	1,400,191	+4%
	1986	42,919,234	+2%	12,523,570	+9%	6,945,108	-(*)	22,098,066	-1%	1,352,490	+2%
	1985	42,000,109	+1%	11,450,621	+3%	6,949,436	+3%	22,278,498	-1%	1,321,554	+5%
	1984	41,684,589	+8%	11,110,294	+12%	6,735,875	+11%	22,583,123	+6%	1,255,297	+4%
	1983	38,503,304	+7%	9,907,170	+8%	6,059,840	+16%	21,331,648	+4%	1,204,646	+4%
<u>Local Operations</u>	1987	16,964,470	+1%	—	—	—	—	15,581,889	+(*)	1,382,581	+7%
	1986	16,835,109	+5%	—	—	—	—	15,539,311	+5%	1,295,798	+3%
	1985	16,021,412	-(*)	—	—	—	—	14,765,967	-1%	1,255,445	+3%
	1984	16,071,339	+5%	—	—	—	—	14,854,728	+5%	1,216,611	-3%
	1983	15,354,661	+5%	—	—	—	—	14,098,304	+6%	1,256,357	+2%

(*) Less than 0.5 percent.

TABLE 2.13

AIR TRAFFIC ACTIVITY AT FAA FACILITIES, BY AVIATION CATEGORY
CALENDAR YEARS 1983 - 1987

	Year	Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
<u>Total Instrument Operations</u>	1987	43,813,578	+6%	13,791,619	+6%	7,582,028	+12%	17,998,854	+5%	4,441,077	+2%
	1986	41,293,048	+6%	13,021,064	+9%	6,766,667	+5%	17,156,395	+1%	4,348,922	+4%
	1985	38,804,981	+2%	11,895,855	+3%	6,444,136	+5%	16,284,634	-(*)	4,180,356	+4%
	1984	37,987,665	+9%	11,562,870	+12%	6,108,342	+10%	16,315,315	+9%	4,001,138	+5%
	1983	34,732,933	+8%	10,358,246	+8%	5,553,722	+12%	14,997,375	+7%	3,823,590	+4%
<u>Total Instrument Approaches</u>	1987	2,087,672	-17%	803,771	-17%	459,405	-7%	708,701	-22%	115,795	-21%
	1986	2,518,380	+9%	962,993	+15%	494,075	+3%	914,107	+5%	147,205	+15%
	1985	2,299,572	+4%	822,497	+6%	480,898	+2%	870,545	+2%	125,632	+1%
	1984	2,219,561	+11%	770,761	+7%	473,332	+3%	851,238	-3%	124,230	-6%
	1983	2,193,583	+4%	721,988	+(*)	459,309	+13%	879,943	+2%	132,343	+5%
<u>Total Instrument Approaches at Control Facilities</u> ¹	1987	1,904,605	-18%	788,015	-17%	395,786	-9%	616,231	-25%	104,573	-22%
	1986	2,330,153	+5%	945,599	+14%	433,426	+2%	816,590	+4%	134,538	+16%
	1985	2,128,936	+3%	810,009	+7%	424,261	+1%	781,110	+2%	113,556	+1%
	1984	2,059,527	+2%	757,378	+7%	422,336	+2%	767,273	-3%	112,540	-(*)
	1983	2,026,832	+2%	705,914	+(*)	412,482	+11%	795,607	+(*)	112,829	-2%

(*) Less than 0.5 percent.

¹ Excludes instrument approaches provided by Air Route Traffic Control Centers.

TABLE 2.14
AIR TRAFFIC ACTIVITY AT FLIGHT SERVICE FACILITIES
CALENDAR YEARS 1983 - 1987

	Year	Flight Services ¹		Flight Plans Originated						Airport Advisories		Pilot Briefs	
		Total	Annual Change	Total	Annual Change	IFR-DVFR	Annual Change	VFR	Annual Change	Total	Annual Change	Total	Annual Change
<u>Flight Service Stations</u>	1987	46,661,663	-4%	7,601,465	+1%	5,878,781	+(*)	1,722,684	+5%	2,305,151	-11%	12,321,658	-7%
	1986	48,727,382	-6%	7,503,913	-5%	5,867,455	-5%	1,636,458	-3%	2,584,214	-7%	13,281,761	-7%
	1985	51,819,747	-5%	7,874,976	-4%	6,191,977	-4%	1,682,999	-5%	2,774,929	-6%	14,230,398	-6%
	1984	54,586,516	-3%	8,178,597	+(*)	6,420,450	+1%	1,758,147	-3%	2,940,906	-3%	15,076,778	-5%
	1983	56,236,268	-8%	8,155,919	-3%	6,345,620	-2%	1,810,299	-6%	3,028,397	-12%	15,786,500	-9%
<u>International Flight Service Stations</u>	1987	1,434,844	-6%	314,349	-1%	152,121	+5%	162,228	-6%	7,194	-23%	245,726	-7%
	1986	1,534,091	-2%	317,939	-16%	145,311	-18%	172,628	-13%	9,352	-3%	263,431	-39%
	1985	2,080,472	-1%	377,347	+2%	178,134	-4%	199,213	+7%	9,599	-65%	434,303	+2%
	1984	2,092,488	-4%	371,116	-2%	185,407	+2%	185,709	-5%	15,857	+51%	426,816	+1%
	1983	2,178,043	-(*)	377,809	-2%	181,325	-2%	196,484	-1%	10,517	-56%	423,689	+4%

(*) Less than 0.5 percent.

¹ The sum of flight plans originated and pilot briefs, multiplied by two, plus the number of aircraft contacted (see Table 2.15).
No credit is allowed for airport advisories.

TABLE 2.15

**AIRCRAFT CONTACTED AT FLIGHT SERVICE FACILITIES, BY AVIATION CATEGORY
CALENDAR YEARS 1983 - 1987**

	Year	AIRCRAFT CONTACTED									
		Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
<u>Flight Service Stations</u>	1987	6,815,417	-5%	342,138	-6%	930,059	-5%	5,087,614	-6%	455,606	+7%
	1986	7,156,034	-6%	364,183	-6%	977,917	-10%	5,388,852	-6%	425,082	-2%
	1985	7,608,999	-6%	385,568	-8%	1,087,881	-1%	5,703,345	-8%	432,205	+2%
	1984	8,075,766	-3%	416,072	-30%	1,095,251	(*)	6,141,629	-5%	422,814	(*)
	1983	8,351,430	-11%	596,569	-6%	1,095,694	-7%	6,438,465	-12%	420,702	-1%
<u>IFF-DVFR</u>	1987	1,964,873	-5%	321,056	-5%	417,846	-3%	1,067,407	-8%	158,564	+8%
	1986	2,073,740	-5%	339,552	-3%	429,062	-5%	1,158,869	-6%	146,257	-3%
	1985	2,180,265	-4%	351,775	-3%	450,979	-2%	1,227,469	-6%	150,042	+3%
	1984	2,266,652	(*)	361,508	+10%	458,246	+1%	1,301,754	-5%	145,144	+2%
	1983	2,279,132	-7%	327,911	-4%	452,502	-3%	1,356,995	-10%	141,724	+4%
<u>VFR</u>	1987	4,850,544	-5%	21,082	-14%	512,213	-7%	4,020,207	-5%	297,042	+7%
	1986	5,082,294	-6%	24,631	-27%	548,855	-14%	4,229,983	-5%	278,825	-1%
	1985	5,428,734	-7%	33,793	-62%	636,902	(*)	4,475,876	-8%	282,163	+1%
	1984	5,809,114	-4%	54,564	-21%	637,005	-1%	4,839,875	-5%	277,670	(*)
	1983	6,072,298	-12%	68,658	-15%	643,192	-10%	5,081,470	-13%	278,978	-4%

(*) Less than 0.5 percent.

TABLE 2.15 (continued)
AIRCRAFT CONTACTED AT FLIGHT SERVICE FACILITIES, BY AVIATION CATEGORY
CALENDAR YEARS 1983 - 1987

	Year	AIRCRAFT CONTACTED									
		Total		Air Carrier		Air Taxi		General Aviation		Military	
		Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change	Total	Annual Change
<u>International Flight Service Stations</u>	1987	314,694	-15%	11,394	+5%	92,576	-33%	204,023	-5%	6,701	+3%
	1986	371,351	-19%	10,841	+11%	138,166	-10%	215,833	-24%	6,511	-14%
	1985	457,172	-9%	9,763	-336%	154,021	+4%	285,780	-5%	7,608	+3%
	1984	496,624	-14%	42,522	-63%	147,836	+2%	298,905	+2%	7,361	+66%
	1983	575,047	-4%	115,281	-6%	144,260	-3%	294,006	-7%	21,500	+78%
<u>IFR-DVFR</u>	1987	36,779	-1%	11,077	+6%	4,447	+45%	18,672	-13%	2,583	+7%
	1986	37,301	-5%	10,405	+8%	3,066	-37%	21,425	-5%	2,405	-1%
	1985	39,377	-72%	9,595	-339%	4,850	+5%	22,511	+19%	2,421	-12%
	1984	67,743	-60%	42,127	-63%	4,622	-33%	18,287	-4%	2,707	+84%
	1983	153,923	+2%	114,585	-5%	3,475	+17%	19,013	-11%	16,850	+287%
<u>VFR</u>	1987	277,915	-17%	317	-27%	88,129	-35%	185,351	-5%	4,118	+(*)
	1986	334,050	-20%	436	+160%	135,100	-9%	194,408	-26%	4,106	-21%
	1985	417,795	-3%	168	-135%	149,171	+4%	263,269	-7%	5,187	+10%
	1984	428,881	+2%	395	-43%	143,214	-2%	280,618	-2%	4,654	+(*)
	1983	421,124	-6%	696	-52%	140,785	-3%	274,993	-6%	4,650	-25%

(*) Less than 0.5 percent.

TABLE 2.16

**TOP 25 FAA-OPERATED AIRPORT TRAFFIC CONTROL TOWERS, BY RANK ORDER OF TOTAL OPERATIONS
AND BY AVIATION CATEGORY INCLUDING AIR CARRIER RANK
CALENDAR YEAR 1987**

Tower	Total Operations		Air Carrier		Air Taxi	General Aviation	Military
	Rank		Rank				
Atlanta International	1	796,939	2	573,534	192,662	29,134	1,609
Chicago O'Hare Int'l	2	791,886	1	685,693	69,114	33,684	3,395
Los Angeles International	3	667,186	4	428,227	171,065	62,990	4,904
Dallas Ft. Worth Regional	4	624,708	3	493,612	109,078	20,753	1,265
Denver Stapleton Int'l	5	520,858	5	372,980	105,668	39,469	2,741
Santa Ana	6	512,245	57	62,086	26,781	420,564	2,814
Van Nuys	7	476,627	277	12	495	472,173	3,947
San Francisco	8	455,874	6	330,152	89,257	33,736	2,729
Boston Logan	9	440,653	14	247,098	142,685	60,577	293
Phoenix Sky Harbor Int'l	10	438,438	13	252,964	65,955	112,763	6,756
Long Beach	11	434,995	116	15,056	2,991	414,459	2,489
St. Louis International	12	419,204	7	279,090	81,671	46,537	11,906
Philadelphia Int'l	13	417,668	24	190,634	165,420	60,410	1,204
Detroit Metro Wayne	14	404,624	10	260,124	75,858	68,289	353
Las Vegas McCarran Int'l	15	385,811	21	200,213	71,495	107,935	6,168
Honolulu	16	385,260	17	216,044	62,171	83,535	23,510
Minneapolis St Paul Int'l	17	383,423	11	255,923	48,772	73,218	5,510
Pontiac	18	381,647	237	324	5,957	374,648	718
Memphis International	19	380,911	18	214,410	72,216	88,413	5,812
Newark	20	377,902	8	275,140	75,075	27,191	496
Seattle Boeing	21	377,361	186	4,543	15,531	354,513	2,774
Charlotte Douglas	22	374,421	25	190,498	89,878	90,161	3,884
Pittsburgh Greater Int'l	23	373,796	15	244,930	94,796	26,903	7,167
Oakland International	24	363,887	47	76,142	39,867	246,707	1,171
La Guardia	25	363,733	9	266,862	67,940	28,369	562

NOTE: Total Operations rank was based on total air traffic activity at 400 FAA-Operated Towers.

Air Carrier operations rank was based on air carrier activity at 303 FAA-Operated Towers.

Not all FAA-Operated Towers handle air carrier operations.

TABLE 2.17

**TOP 25 FAA-OPERATED AIRPORT TRAFFIC CONTROL TOWERS, BY RANK ORDER OF AIR CARRIER OPERATIONS
AND BY AVIATION CATEGORY INCLUDING TOTAL OPERATIONS RANK
CALENDAR YEAR 1987**

Tower	Air Carrier		Air Taxi	General Aviation	Military	Total Operations	
	Rank					Rank	
Chicago O'Hare International	1	685,693	69,114	33,684	3,395	2	791,886
Atlanta International	2	573,534	192,662	29,134	1,609	1	796,939
Dallas Ft. Worth Regional	3	493,612	109,078	20,753	1,265	4	624,708
Los Angeles Int'l	4	428,227	171,065	62,990	4,904	3	667,186
Denver Stapleton Int'l	5	372,980	105,668	39,469	2,741	5	520,858
San Francisco	6	330,152	89,257	33,736	2,729	8	455,874
St. Louis Int'l	7	279,090	81,671	46,537	11,906	12	419,204
Newark	8	275,140	75,075	27,191	496	20	377,902
La Guardia	9	266,862	67,940	28,369	562	25	363,733
Detroit Metro Wayne Co	10	260,124	75,858	68,289	353	14	404,624
Minneapolis St. Paul Int'l	11	255,923	48,772	73,218	5,510	17	383,423
Miami International	12	253,069	50,009	56,890	704	26	360,672
Phoenix Sky Harbor Int'l	13	252,964	65,955	112,763	6,756	10	438,438
Boston Logan	14	247,098	142,685	50,577	293	9	440,653
Pittsburgh Greater Int'l	15	244,930	94,796	26,903	7,167	23	373,796
Houston Intercontinental	16	224,703	25,507	48,367	1,399	32	299,976
Honolulu	17	216,044	62,171	83,535	23,510	16	385,260
Memphis International	18	214,470	72,216	88,413	5,812	19	380,911
John F. Kennedy Int'l	19	208,718	81,976	26,426	780	31	317,900
Cincinnati Greater	20	203,373	21,208	24,470	392	46	249,443
Las Vegas McCarran Int'l	21	200,213	71,495	107,935	6,168	15	385,811
Orlando Int'l	22	194,714	28,781	36,553	3,193	43	263,241
Washington Dulles Int'l	23	193,179	25,856	65,225	4,129	36	288,389
Philadelphia Int'l	24	190,634	165,420	60,410	1,204	13	417,668
Charlotte Douglas	25	190,498	89,878	90,161	3,884	22	374,421

NOTE: Total Operations rank was based on total air traffic activity at 400 FAA-Operated Towers.

Air Carrier operations rank was based on air carrier activity at 303 FAA-Operated Towers.
Not all FAA-Operated Towers handle air carrier operations.

TABLE 2.18

TOTAL FAA AIR TRAFFIC ACTIVITY BY REGION AND STATE, AND BY FAA-OPERATED TOWERS,
AIR ROUTE TRAFFIC CONTROL CENTERS, FLIGHT SERVICE STATIONS AND INTERNATIONAL
FLIGHT SERVICE STATIONS
CALENDAR YEAR 1987

FAA Region and State	Airport Operations (Towers)	Aircraft Handled (Centers)	Aircraft Contacted		Flight Services	
			Flight Service Stations	Int'l Flight Service Sta.	Flight Service Stations	Int'l Flight Service Sta.
TOTAL	61,004,284	36,112,129	6,815,417	314,694	46,661,663	1,434,844
Alaskan - Total	1,075,979	427,209	971,026	0	2,446,278	0
Central - Total	2,396,124	1,728,229	456,437	0	3,053,585	0
Iowa	461,683	—	66,585	—	653,429	—
Kansas	468,975	—	146,240	—	719,020	—
Missouri	1,157,688	1,728,229	142,679	—	1,207,213	—
Nebraska	307,778	—	100,933	—	473,923	—
Eastern - Total	8,293,196	4,060,381	552,987	0	6,733,165	0
Delaware	191,665	—	—	—	—	—
District of Columbia	325,144	2,295,370	61,031	—	792,613	—
Maryland	513,231	—	57,713	—	160,479	—
New Jersey	1,306,082	—	53,316	—	905,602	—
New York	2,538,539	1,765,011	113,299	—	1,848,065	—
Pennsylvania	1,941,967	—	149,381	—	1,831,515	—
Virginia	1,093,858	—	30,918	—	430,306	—
West Virginia	382,710	—	87,329	—	764,585	—
Great Lakes - Total	9,720,868	8,028,015	873,734	0	7,711,468	—
Illinois	2,803,692	2,353,192	116,710	—	1,281,498	—
Indiana	865,596	1,789,703	90,195	—	1,214,883	—
Michigan	2,082,565	—	124,284	—	1,143,420	—
Minnesota	1,022,972	1,612,999	117,375	—	634,709	—
North Dakota	413,030	—	60,024	—	374,166	—
Ohio	1,512,005	2,272,121	138,900	—	1,893,012	—
South Dakota	158,601	—	111,009	—	385,289	—
Wisconsin	862,407	—	115,237	—	784,491	—
New England - Total	3,630,958	1,676,245	182,606	0	1,938,882	0
Connecticut	913,083	—	72,150	—	1,179,742	—
Maine	246,515	—	46,690	—	364,632	—
Massachusetts	1,876,826	1,676,245	—	—	—	—
New Hampshire	242,819	—	33,404	—	164,392	—
Rhode Island	208,521	—	—	—	—	—
Vermont	143,194	—	30,362	—	230,116	—

TABLE 2.18 (continued)

TOTAL FAA AIR TRAFFIC ACTIVITY BY REGION AND STATE, AND BY FAA-OPERATED TOWERS,
AIR ROUTE TRAFFIC CONTROL CENTERS, FLIGHT SERVICE STATIONS AND INTERNATIONAL
FLIGHT SERVICE STATIONS
CALENDAR YEAR 1987

FAA Region and State	Airport Operations (Towers)	Aircraft Handled (Centers)	Aircraft Contacted		Flight Services	
			Flight Service Stations	Int'l Flight Service Sta.	Flight Service Stations	Int'l Flight Service Sta.
Northwest Mountain - Total	<u>5,150,505</u>	<u>3,641,632</u>	<u>923,806</u>	<u>0</u>	<u>3,938,296</u>	<u>0</u>
Colorado	1,396,724	1,309,314	154,719	—	831,927	—
Idaho	344,989	—	51,634	—	252,760	—
Montana	300,597	—	164,878	—	499,326	—
Oregon	825,487	—	117,073	—	575,969	—
Utah	399,704	1,084,550	70,989	—	344,141	—
Washington	1,756,628	1,247,768	255,090	—	1,089,626	—
Wyoming	126,376	—	109,423	—	344,547	—
Southern - Total	<u>11,103,898</u>	<u>7,563,525</u>	<u>1,082,442</u>	<u>314,694</u>	<u>9,749,332</u>	<u>1,434,844</u>
Alabama	657,717	—	133,154	—	1,035,126	—
Florida	4,760,292	3,297,089	283,438	215,840	2,757,204	1,153,244
Georgia	1,558,388	2,436,770	130,432	—	1,395,956	—
Kentucky	727,483	—	106,500	—	661,078	—
Mississippi	324,649	—	61,048	—	439,612	—
North Carolina	1,147,780	—	146,783	—	1,352,095	—
Puerto Rico	275,586	—	—	98,854	—	281,600
South Carolina	467,296	—	86,171	—	874,789	—
Tennessee	1,022,487	1,829,666	134,916	—	1,233,472	—
Virgin Islands	162,220	—	—	—	—	—
Southwest - Total	<u>6,635,419</u>	<u>4,915,635</u>	<u>729,425</u>	<u>0</u>	<u>5,699,061</u>	<u>0</u>
Arkansas	349,174	—	99,566	—	588,036	—
Louisiana	1,102,578	—	47,567	—	634,825	—
New Mexico	385,410	1,461,126	142,838	—	550,748	—
Oklahoma	790,410	—	93,874	—	769,692	—
Texas	4,007,847	3,454,509	345,580	—	3,155,760	—
Western-Pacific - Total	<u>12,997,337</u>	<u>4,071,258</u>	<u>1,042,954</u>	<u>0</u>	<u>5,391,596</u>	<u>0</u>
American Samoa	12,892	—	—	—	—	—
Arizona	1,780,816	—	138,250	—	684,882	—
California	9,620,451	3,517,848	748,743	—	3,958,895	—
C Guam	—	49,627	—	—	—	—
Hawaii	884,380	503,783	81,457	—	361,241	—
Nevada	675,047	—	74,504	—	386,578	—
Wake Island	23,751	—	—	—	—	—

III. AIRPORTS

Information about U.S. civil and joint-use landing facilities (including airports, heliports, stolports, and seaplane bases) was furnished by the FAA Office of Airport Standards. This information was obtained through physical inspection and mail solicitations, and was reported on the Airport Master Record (Form FAA 5010-1) and FAA Landing Facilities Information Request on Airports, Heliports, Stolports, and Seaplane Bases (Forms 5010-2 and 5010-5).

TABLE 3.1
TOTAL ALL FACILITIES
ON RECORD WITH FAA
1978 - 1987

Year	All Facilities ¹			Airports Only			
	Total	With Runway Lights	With Paved Runways	Total	With Runway Lights	With Paved Runways	Airports of Entry*
1978	14,574	4,567	5,484	12,006	4,331	4,219	70
1979	14,746	4,631	5,618	12,064	4,365	4,256	60
1980	15,161	4,738	5,833	12,240	4,443	4,306	69
1981	15,476	4,796	6,012	12,427	4,474	4,351	69
1982	15,831	4,842	6,224	12,596	4,494	4,391	63
1983	16,029	4,878	6,441	12,653	4,513	4,431	59
1984	16,079	4,889	6,531	12,648	4,536	4,450	59
1985	16,318	4,941	6,721	12,744	4,582	4,486	57
1986	16,582	4,954	6,948	12,785	4,601	4,499	76
1987	17,015	4,922	7,232	12,907	4,610	4,526	80

* Excludes landing rights airports.

1 All facilities include airports, heliports, stolports, and seaplane bases.

TABLE 3.2

U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS, AND SEAPLANE BASES,
AND REPORTED ABANDONMENTS ON RECORD, BY FAA REGION AND STATE
DECEMBER 31, 1987

FAA Region and State	Total Aircraft Facilities	Airports	Heliports	Stolports	Seaplane Bases	Reported Abandonments During Year
Total	<u>17,015</u>	<u>12,907</u>	<u>3,653</u>	<u>67</u>	<u>388</u>	<u>401</u>
United States--Total ¹	<u>16,949</u>	<u>12,859</u>	<u>3,639</u>	<u>67</u>	<u>384</u>	<u>397</u>
Alaskan--Total	<u>593</u>	<u>466</u>	<u>21</u>	---	<u>106</u>	<u>24</u>
Central--Total	<u>1,437</u>	<u>1,268</u>	<u>161</u>	<u>3</u>	<u>5</u>	<u>37</u>
Iowa	277	236	40	1	---	9
Kansas	389	366	22	1	---	7
Missouri	440	354	80	1	5	10
Nebraska	331	312	19	---	---	11
Eastern--Total	<u>2,175</u>	<u>1,379</u>	<u>725</u>	<u>7</u>	<u>64</u>	<u>87</u>
Delaware	35	21	14	---	---	3
District of Columbia	15	2	13	---	---	1
Maryland	154	109	43	1	1	7
New Jersey	317	116	186	---	15	6
New York	507	360	123	---	24	10
Pennsylvania	744	489	241	3	11	55
Virginia	308	221	81	3	3	4
West Virginia	95	61	24	--	10	1
Great Lakes--Total	<u>4,135</u>	<u>3,445</u>	<u>587</u>	<u>11</u>	<u>92</u>	<u>98</u>
Illinois	913	714	193	---	6	18
Indiana	530	441	83	2	4	18
Michigan	431	362	62	2	5	9
Minnesota	477	390	21	1	65	9
North Dakota	487	480	6	---	1	17
Ohio	716	525	187	4	---	12
South Dakota	158	150	7	1	---	10
Wisconsin	423	383	28	1	11	5
New England--Total	<u>568</u>	<u>329</u>	<u>183</u>	<u>5</u>	<u>51</u>	<u>16</u>
Connecticut	120	55	58	2	5	4
Maine	144	102	9	---	33	5
Massachusetts	158	75	73	1	9	5
New Hampshire	62	39	20	---	3	2
Rhode Island	22	12	9	---	1	---
Vermont	62	46	14	2	---	---

TABLE 3.2 (Continued)
U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS, AND SEAPLANE BASES,
AND REPORTED ABANDONMENTS ON RECORD, BY FAA REGION AND STATE
DECEMBER 31, 1987

FAA Region and State	Total Aircraft Facilities	Airports	Heliports	Stolports	Seaplane Bases	Reported Abandonments During Year
Northwest Mountain--Total	<u>1,737</u>	<u>1,355</u>	<u>353</u>	<u>10</u>	<u>19</u>	<u>25</u>
Colorado	333	218	110	5	---	4
Idaho	207	182	21	---	4	3
Montana	210	189	19	1	1	2
Oregon	366	282	79	3	2	4
Utah	109	84	25	---	---	1
Washington	408	308	87	1	12	10
Wyoming	104	92	12	---	---	1
Southern--Total	<u>2,165</u>	<u>1,665</u>	<u>457</u>	<u>18</u>	<u>25</u>	<u>35</u>
Alabama	193	154	38	---	1	1
Florida	607	412	176	3	16	17
Georgia	334	256	74	4	---	2
Kentucky	139	112	27	---	---	4
Mississippi	194	172	22	---	---	---
North Carolina	316	269	43	3	1	4
Puerto Rico	27	17	9	---	1	4
South Carolina	146	128	17	---	1	---
Tennessee	201	143	48	8	2	3
Virgin Islands	8	2	3	---	3	---
Southwest--Total	<u>2,818</u>	<u>2,104</u>	<u>693</u>	<u>7</u>	<u>14</u>	<u>53</u>
Arkansas	173	157	16	---	---	---
Louisiana	381	196	173	---	12	13
New Mexico	174	157	16	---	1	2
Oklahoma	403	318	84	---	1	5
Texas	1,687	1,276	404	7	---	33
Western-Pacific--Total	<u>1,387</u>	<u>896</u>	<u>473</u>	<u>6</u>	<u>12</u>	<u>26</u>
Arizona	265	176	87	2	---	8
California	909	557	337	3	12	13
Hawaii	54	35	19	---	---	1
Nevada	128	99	28	1	---	4
South Pacific ²	31	29	2	---	---	---

1 Excludes Puerto Rico, Virgin Islands, and South Pacific.

2 American Samoa, Guam and Trust Territories.

TABLE 3.3

U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS, AND SEAPLANE BASES,
ON RECORD, BY TYPE OF OWNERSHIP
DECEMBER 31, 1987

FAA Region and State	Total Facilities	By Ownership		Paved Facilities		Unpaved Facilities	
		Private	Public	Lighted	Not Lighted	Lighted	Not Lighted
TOTAL	<u>17,015</u>	<u>12,031</u>	<u>4,984</u>	<u>3,983</u>	<u>3,249</u>	<u>939</u>	<u>8,844</u>
United States--Total ¹	<u>16,949</u>	<u>12,013</u>	<u>3,960</u>	<u>3,960</u>	<u>3,230</u>	<u>938</u>	<u>8,821</u>
Alaskan--Total	<u>593</u>	<u>196</u>	<u>397</u>	<u>46</u>	<u>14</u>	<u>89</u>	<u>444</u>
Central--Total	<u>1,437</u>	<u>962</u>	<u>475</u>	<u>408</u>	<u>147</u>	<u>127</u>	<u>755</u>
Iowa	277	155	122	100	32	52	93
Kansas	389	257	132	109	19	33	228
Missouri	440	314	126	121	72	24	223
Nebraska	331	236	95	78	24	18	211
Eastern--Total	<u>2,175</u>	<u>1,838</u>	<u>337</u>	<u>418</u>	<u>478</u>	<u>115</u>	<u>1,164</u>
Delaware	35	31	4	7	7	6	15
District of Columbia	15	8	7	5	7	---	3
Maryland	154	133	21	36	31	9	78
New Jersey	317	276	41	45	85	16	171
New York	507	423	84	98	104	37	268
Pennsylvania	744	666	78	117	161	35	431
Virginia	308	234	74	78	61	11	158
West Virginia	95	67	28	32	22	1	40
Great Lakes--Total	<u>4,135</u>	<u>3,244</u>	<u>891</u>	<u>790</u>	<u>425</u>	<u>319</u>	<u>2,601</u>
Illinois	913	803	110	114	119	59	621
Indiana	530	444	86	89	58	34	349
Michigan	431	297	134	125	50	45	211
Minnesota	477	330	147	101	19	38	319
North Dakota	487	388	99	65	10	32	380
Ohio	716	582	134	143	129	52	392
South Dakota	158	83	75	48	8	27	75
Wisconsin	423	317	106	105	32	32	254
New England--Total	<u>568</u>	<u>430</u>	<u>138</u>	<u>128</u>	<u>151</u>	<u>9</u>	<u>280</u>
Connecticut	120	104	16	27	43	2	48
Maine	144	99	45	29	15	2	98
Massachusetts	158	125	33	39	58	3	58
New Hampshire	62	47	15	17	19	2	24
Rhode Island	22	13	9	7	8	---	7
Vermont	62	42	20	9	8	---	45

TABLE 3.3 (Continued)

U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS, AND SEAPLANE BASES,
ON RECORD, BY TYPE OF OWNERSHIP
DECEMBER 31, 1987

FAA Region and State	Total Facilities	By Ownership		Paved Facilities		Unpaved Facilities	
		Private	Public	Lighted	Not Lighted	Lighted	Not Lighted
Northwest Mountain--Total	<u>1,737</u>	<u>1,060</u>	<u>677</u>	<u>438</u>	<u>336</u>	<u>86</u>	<u>877</u>
Colorado	333	237	96	82	81	17	153
Idaho	207	79	128	41	31	1	134
Montana	210	89	121	67	25	15	103
Oregon	366	267	99	69	78	16	203
Utah	109	52	57	41	28	2	38
Washington	408	281	127	105	79	32	192
Wyoming	104	55	49	33	14	3	54
Southern--Total	<u>2,165</u>	<u>1,381</u>	<u>784</u>	<u>686</u>	<u>417</u>	<u>100</u>	<u>962</u>
Alabama	193	93	100	90	40	8	55
Florida	607	469	138	124	137	30	316
Georgia	334	205	129	106	68	13	147
Kentucky	139	71	68	57	33	3	46
Mississippi	194	108	86	73	30	9	82
North Carolina	316	221	95	92	38	19	167
Puerto Rico	27	13	14	10	13	---	4
South Carolina	146	81	65	54	16	9	67
Tennessee	201	118	83	78	41	8	74
Virgin Islands	8	2	6	2	1	1	4
Southwest--Total	<u>2,818</u>	<u>2,051</u>	<u>767</u>	<u>699</u>	<u>743</u>	<u>73</u>	<u>1,303</u>
Arkansas	173	84	89	78	30	4	61
Louisiana	381	286	95	75	142	4	160
New Mexico	174	99	75	51	28	3	92
Oklahoma	403	240	163	121	84	15	183
Texas	1,687	1,342	345	374	459	47	807
Western-Pacific--Total	<u>1,387</u>	<u>869</u>	<u>518</u>	<u>370</u>	<u>538</u>	<u>21</u>	<u>458</u>
Arizona	265	173	92	64	85	3	113
California	909	593	316	255	387	14	253
Hawaii	54	36	18	12	30	1	11
Nevada	128	64	64	28	31	3	66
South Pacific ²	31	3	28	11	5	---	15

1 Excludes Puerto Rico, Virgin Islands, and South Pacific.

2 American Samoa, Guam and Trust Territories.

TABLE 3.4

U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS, AND SEAPLANE BASES
ON RECORD, BY LENGTH OF LONGEST RUNWAY, BY FAA REGION AND STATE
DECEMBER 31, 1987

FAA Region and State	Total	Under 3000	3000-3999	4000-4999	5000-5999	6000-6999	7000-7999	8000-8999	9000-9999	10,000-Over
TOTAL	17,015	11,347	2,667	1,200	866	334	178	121	67	235
U.S.--Total ¹	16,949	11,316	2,659	1,196	861	327	173	120	65	232
Alaskan--Total	593	315	75	54	57	21	10	6	5	50
Central--Total	1,437	1,015	251	87	36	17	12	6	3	10
Iowa	277	185	48	31	4	5	1	2	1	---
Kansas	389	275	67	21	15	2	6	---	---	3
Missouri	440	325	74	14	10	6	3	1	1	6
Nebraska	331	230	62	21	7	4	2	3	1	1
Eastern--Total	2,175	1,755	189	66	78	29	16	8	10	24
Delaware	35	27	4	2	1	---	1	---	---	---
District of Columbia	15	13	---	---	---	1	---	---	---	1
Maryland	154	127	14	6	4	---	1	1	1	---
New Jersey	317	268	24	5	10	2	3	1	1	3
New York	507	387	51	14	18	10	4	2	4	17
Pennsylvania	744	647	44	17	17	7	5	1	3	3
Virginia	308	231	37	17	14	5	---	3	1	---
West Virginia	95	55	15	5	14	4	2	---	---	---
Great Lakes--Total	4,135	3,108	558	190	116	60	28	24	9	42
Illinois	913	801	59	20	14	9	3	4	1	2
Indiana	530	423	58	19	16	4	2	1	1	6
Michigan	431	287	73	27	20	11	5	1	1	6
Minnesota	477	284	83	32	27	15	9	6	---	21
N. Dakota	487	380	76	19	5	3	2	1	1	---
Ohio	716	555	91	36	18	6	2	3	3	2
S. Dakota	158	78	51	16	5	5	1	2	---	---
Wisconsin	423	300	67	21	11	7	4	6	2	5
New England--Total	568	408	52	30	38	10	9	3	2	16
Connecticut	120	102	5	6	4	---	1	---	1	1
Maine	144	76	18	13	13	5	3	2	---	14
Massachusetts	158	118	17	5	11	3	1	1	1	1
New Hampshire	62	45	6	2	6	2	1	---	---	---
Rhode Island	22	16	1	2	1	---	2	---	---	---
Vermont	62	51	5	2	3	---	1	---	---	---

TABLE 3.4 (continued)

U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS, AND SEAPLANE BASES
ON RECORD, BY LENGTH OF LONGEST RUNWAY, BY FAA REGION AND STATE
DECEMBER 31, 1987

FAA Region and State	Total	Under 3000	3000-3999	4000-4999	5000-5999	6000-6999	7000-7999	8000-8999	9000-9999	10,000-Over
Northwest Mountain--										
<u>Total</u>	<u>1,737</u>	<u>1,006</u>	<u>304</u>	<u>182</u>	<u>121</u>	<u>45</u>	<u>23</u>	<u>14</u>	<u>16</u>	<u>26</u>
Colorado	333	183	54	40	26	10	5	5	4	6
Idaho	207	105	48	34	10	2	1	1	3	3
Montana	210	78	73	33	15	1	---	2	4	4
Oregon	366	272	43	19	21	7	1	1	---	2
Utah	109	31	18	23	19	9	5	2	1	1
Washington	408	305	49	15	19	5	4	---	3	8
Wyoming	104	32	19	18	11	11	7	3	1	2
Southern--Total	2,165	1,241	447	204	147	41	26	28	8	23
Alabama	193	97	36	30	13	6	2	5	2	2
Florida	607	370	110	48	33	12	12	10	1	11
Georgia	334	197	74	23	30	5	---	3	1	1
Kentucky	139	88	15	17	12	4	1	---	1	1
Mississippi	194	89	70	16	9	4	1	4	1	---
N. Carolina	316	194	65	31	12	4	5	1	---	4
Puerto Rico	27	16	4	2	2	1	---	---	---	2
S. Carolina	146	73	40	11	17	2	1	2	---	---
Tennessee	201	113	33	26	18	3	2	3	2	1
Virgin Islands	8	4	---	---	1	---	2	---	---	1
Southwest--Total	2,818	1,651	580	260	189	59	32	18	6	23
Arkansas	173	78	47	22	16	8	1	1	---	---
Louisiana	381	266	65	15	16	6	2	2	1	8
New Mexico	174	44	29	32	39	11	10	5	---	4
Oklahoma	403	264	82	26	17	6	3	1	1	3
Texas	1,687	999	357	165	101	28	16	9	4	8
Western-Pacific--	1,387	848	211	127	84	52	22	14	8	21
<u>Total</u>										
Arizona	265	140	39	44	18	12	5	5	---	2
California	909	610	146	59	38	22	9	6	4	15
Hawaii	54	41	4	2	2	3	---	---	1	1
Nevada	128	46	18	20	24	9	5	2	1	3
South Pacific ²	31	11	4	2	2	6	3	1	2	---

1 Excludes Puerto Rico, Virgin Islands, and South Pacific.

2 American Samoa, Guam, and Trust Territories.

TABLE 3.5

U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS, AND SEAPLANE BASES
ON RECORD, BY FAA REGION AND STATE AND OTHER AREAS
DECEMBER 31, 1978 - 1987

FAA Region and State	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
TOTAL	<u>14,574</u>	<u>14,746</u>	<u>15,161</u>	<u>15,476</u>	<u>15,631</u>	<u>16,029</u>	<u>16,079</u>	<u>16,318</u>	<u>16,562</u>	<u>17,615</u>
United States--Total ¹	<u>14,525</u>	<u>14,693</u>	<u>15,107</u>	<u>15,422</u>	<u>15,778</u>	<u>15,966</u>	<u>16,013</u>	<u>16,252</u>	<u>16,516</u>	<u>16,949</u>
Alaskan--Total	<u>756</u>	<u>734</u>	<u>731</u>	<u>689</u>	<u>666</u>	<u>615</u>	<u>609</u>	<u>610</u>	<u>614</u>	<u>593</u>
Central--Total	<u>1,322</u>	<u>1,325</u>	<u>1,340</u>	<u>1,373</u>	<u>1,379</u>	<u>1,430</u>	<u>1,430</u>	<u>1,437</u>	<u>1,421</u>	<u>1,437</u>
Iowa	257	258	267	270	273	280	282	278	279	277
Kansas	372	374	377	376	377	380	384	385	382	389
Missouri	371	374	377	393	398	419	423	437	429	440
Nebraska	322	319	319	334	331	346	341	337	331	331
Eastern--Total	<u>1,976</u>	<u>1,961</u>	<u>1,971</u>	<u>2,003</u>	<u>2,011</u>	<u>2,051</u>	<u>2,048</u>	<u>2,076</u>	<u>2,134</u>	<u>2,175</u>
Delaware	32	35	36	37	35	37	36	36	37	35
District of Columbia	17	18	18	16	16	16	15	15	15	15
Maryland	148	144	150	145	147	147	149	151	155	154
New Jersey	263	266	265	271	280	291	294	295	286	317
New York	498	482	471	486	486	476	480	485	495	507
Pennsylvania	692	684	694	698	696	720	708	719	755	744
Virginia	255	256	260	260	262	270	274	282	299	308
West Virginia	71	76	77	90	89	94	92	93	92	95
Great Lakes--Total	<u>3,370</u>	<u>3,439</u>	<u>3,641</u>	<u>3,813</u>	<u>4,023</u>	<u>4,031</u>	<u>4,027</u>	<u>4,060</u>	<u>4,071</u>	<u>4,135</u>
Illinois	901	891	942	929	908	909	901	888	894	913
Indiana	317	325	347	365	490	498	495	523	518	530
Michigan	418	413	419	417	421	422	427	422	419	431
Minnesota	420	468	491	493	498	492	480	479	472	477
North Dakota	217	221	229	365	442	451	457	484	499	487
Ohio	584	586	652	674	681	678	689	690	697	716
South Dakota	142	153	159	162	163	165	165	164	161	158
Wisconsin	371	382	402	408	420	416	413	410	411	423
New England--Total	<u>540</u>	<u>536</u>	<u>542</u>	<u>534</u>	<u>521</u>	<u>513</u>	<u>509</u>	<u>515</u>	<u>536</u>	<u>568</u>
Connecticut	104	106	108	105	105	105	104	108	112	120
Maine	157	160	162	158	147	146	143	144	144	144
Massachusetts	140	137	138	136	134	130	130	131	141	158
New Hampshire	55	52	52	52	54	54	54	53	58	62
Rhode Island	23	20	18	18	18	18	18	18	20	22
Vermont	61	61	64	65	63	60	60	61	61	62

TABLE 3.5 (continued)

U.S. CIVIL AND JOINT-USE AIRPORTS, HELIPORTS, STOLPORTS, AND SEAPLANE BASES
ON RECORD, BY FAA REGION AND STATE AND OTHER AREAS
DECEMBER 31, 1978 - 1987

FAA Region and State	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Northwest Mountain--Total	<u>1,490</u>	<u>1,542</u>	<u>1,593</u>	<u>1,586</u>	<u>1,619</u>	<u>1,636</u>	<u>1,626</u>	<u>1,662</u>	<u>1,685</u>	<u>1,737</u>
Colorado	272	301	307	312	326	321	315	321	323	333
Idaho	190	194	197	196	197	196	198	202	205	207
Montana	172	177	185	190	191	197	194	200	203	210
Oregon	302	308	323	318	332	341	336	342	351	366
Utah	95	100	104	102	96	95	97	101	105	109
Washington	365	365	371	363	372	382	385	395	396	408
Wyoming	94	97	106	105	105	104	101	101	102	104
Southern--Total	<u>1,719</u>	<u>1,765</u>	<u>1,851</u>	<u>1,895</u>	<u>1,919</u>	<u>1,947</u>	<u>1,961</u>	<u>2,002</u>	<u>2,099</u>	<u>2,165</u>
Alabama	147	156	163	165	167	169	173	174	183	193
Florida	454	458	485	506	529	541	542	557	594	607
Georgia	278	283	288	293	295	302	301	304	325	334
Kentucky	101	112	128	125	127	127	129	134	139	139
Mississippi	160	165	171	180	180	181	180	188	190	194
North Carolina	270	271	285	286	280	284	288	292	307	316
Puerto Rico	27	32	32	33	32	31	31	31	30	27
South Carolina	126	127	132	137	135	137	139	139	137	146
Tennessee	150	155	160	164	168	169	171	176	186	201
Virgin Islands	5	6	7	6	6	6	7	7	8	8
Southwest--Total	<u>2,227</u>	<u>2,227</u>	<u>2,263</u>	<u>2,333</u>	<u>2,425</u>	<u>2,506</u>	<u>2,541</u>	<u>2,624</u>	<u>2,661</u>	<u>2,818</u>
Arkansas	167	167	156	157	157	160	156	163	167	173
Louisiana	291	291	289	292	303	311	317	353	357	381
New Mexico	145	145	149	156	159	160	167	169	168	174
Oklahoma	292	292	294	297	322	332	335	336	341	403
Texas	1,332	1,332	1,375	1,431	1,484	1,543	1,566	1,603	1,628	1,687
Western-Pacific--Total	<u>1,220</u>	<u>1,217</u>	<u>1,229</u>	<u>1,250</u>	<u>1,268</u>	<u>1,305</u>	<u>1,328</u>	<u>1,332</u>	<u>1,361</u>	<u>1,387</u>
Arizona	210	210	216	224	233	240	244	246	262	265
California	819	819	825	832	843	862	881	887	895	909
Hawaii	54	54	50	51	49	51	51	50	51	54
Nevada	119	119	123	128	128	126	124	121	125	128
South Pacific ²	12	11	15	15	15	26	28	28	28	31

¹ Excludes Puerto Rico, Virgin Islands, and South Pacific.

² American Samoa, Guam, and Trust Territories.

TABLE 3.6

AIRPORT IMPROVEMENT PROGRAM: FISCAL YEAR 1986
(EXCLUDES AMENDMENT TO GRANTS)
 (Thousands of Dollars)

FAA REGION and STATE	Primary		Commercial		Reliever		General Aviation		System Planning	
	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects
Southern--	<u>103,957.1</u>	<u>84</u>	<u>5,456.0</u>	<u>25</u>	<u>14,600.0</u>	<u>22</u>	<u>22,721.1</u>	<u>95</u>	<u>743.7</u>	<u>4</u>
Total										
Alabama	3,023.0	10	153.7	3	45.9	1	2,262.0	13	---	---
Florida	36,953.0	28	2,382.4	5	2,611.6	9	4,833.3	23	---	---
Georgia	23,564.7	11	227.3	2	11,165.1	9	2,035.1	15	275.0	2
Kentucky	9,503.9	6	165.5	1	241.8	2	1,609.5	11	---	---
Mississippi	2,998.5	4	527.2	4	---	---	1,626.3	10	---	---
N. Carolina	13,606.8	11	1,216.6	6	---	---	3,740.6	6	---	---
Puerto Rico	---	---	---	---	---	---	3,234.5	1	---	---
S. Carolina	3,568.2	5	783.3	4	535.6	1	2,636.4	14	169.0	1
Tennessee	9,061.5	7	---	---	---	---	743.4	2	299.7	1
Virgin Island	1,677.5	2	---	---	---	---	---	---	---	---
Southwest--										
Total	<u>58,132.4</u>	<u>39</u>	<u>6,587.1</u>	<u>9</u>	<u>20,396.2</u>	<u>20</u>	<u>23,223.5</u>	<u>52</u>	<u>719.6</u>	<u>8</u>
Arkansas	2,020.7	4	565.9	2	486.0	1	1,537.5	7	135.0	1
Louisiana	5,080.3	6	---	---	1,645.1	3	3,970.7	8	71.0	2
New Mexico	437.5	1	4,799.0	2	---	---	2,851.1	3	---	---
Oklahoma	3,599.8	5	50.0	1	1,972.7	3	2,889.4	9	223.4	2
Texas	46,994.1	23	1,172.2	4	16,292.4	13	11,974.8	25	290.2	3
Western-Pacific--										
Total	<u>94,338.8</u>	<u>47</u>	<u>8,288.1</u>	<u>21</u>	<u>27,336.8</u>	<u>18</u>	<u>15,919.0</u>	<u>42</u>	<u>676.3</u>	<u>5</u>
Arizona	13,650.2	7	1,532.4	7	5,561.1	5	2,907.1	10	107.0	1
California	55,846.2	29	5,694.5	11	6,683.8	11	9,910.9	25	354.6	2
Hawaii	15,836.2	5	---	---	---	---	---	---	90.0	1
Nevada	7,637.7	3	361.2	1	15,091.9	2	2,666.3	6	---	---
South Pacific ²	1,368.5	3	700.0	2	---	---	434.7	1	124.7	1

1 Excludes Puerto Rico, Virgin Islands, and South Pacific.

2 American Samoa, Guam, North Mariana and Trust Territories.

TABLE 3.6 (Continued)

AIRPORT IMPROVEMENT PROGRAM: FISCAL YEAR 1986
(EXCLUDES AMENDMENT TO GRANTS)
(Thousands of Dollars)

FAA REGION and STATE	Primary		Commercial		Reliever		General Aviation		System Planning	
	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects
Great Lakes--										
Total	89,507.2	60	16,337.5	27	30,750.9	24	22,509.9	48	2,072.1	10
Illinois	25,162.9	12	2,307.9	5	11,139.6	6	3,989.4	15	821.3	3
Indiana	6,789.9	6	6,761.0	7	4,649.4	6	2,276.8	5	472.3	2
Michigan	17,707.6	15	430.7	3	3,634.2	2	4,493.7	5	---	---
Minnesota	3,938.9	3	245.0	1	2,692.0	2	2,455.1	2	498.6	2
N. Dakota	2,225.9	5	176.7	1	---	---	1,267.3	2	112.5	1
Ohio	23,656.6	9	2,000.0	1	5,460.0	3	4,074.3	6	---	---
S. Dakota	2,532.0	3	1,809.0	5	---	---	1,415.7	9	111.6	1
Wisconsin	7,493.4	7	2,607.2	4	3,175.7	5	2,517.6	4	55.8	1
New England--										
Total	19,375.3	27	3,965.7	12	3,946.4	13	3,984.2	18	264.1	2
Connecticut	3,366.7	7	---	---	132.9	1	831.6	2	---	---
Maine	4,055.3	4	1,160.2	5	---	---	890.1	4	---	---
Massachusetts	6,686.0	9	1,731.4	2	1,495.8	7	947.5	9	100.3	1
New Hampshire	301.1	2	403.3	4	849.4	2	---	---	163.8	1
Rhode Island	3,916.4	3	---	---	1,468.3	3	862.3	1	---	---
Vermont	1,049.8	2	670.8	1	---	---	452.7	2	---	---
Northwest Mountain--										
Total	51,496.7	40	10,226.9	21	11,050.1	21	16,177.8	52	1,077.9	12
Colorado	14,951.6	6	2,966.0	6	6,318.6	10	2,482.9	5	275.3	4
Idaho	2,489.5	3	889.0	3	1,219.0	1	1,803.9	6	22.5	1
Montana	4,800.6	11	65.0	1	---	---	2,602.3	9	75.0	1
Oregon	6,718.7	4	3,779.0	3	1,120.0	2	3,657.5	7	180.0	1
Utah	9,567.2	6	170.0	1	189.0	2	1,750.9	5	167.3	2
Washington	10,441.9	7	837.9	3	2,203.5	6	2,070.1	11	317.1	2
Wyoming	2,527.2	3	1,520.0	4	---	---	1,810.2	9	40.7	1

TABLE 3.6 (Continued)
AIRPORT IMPROVEMENT PROGRAM: FISCAL YEAR 1986
(EXCLUDES AMENDMENT TO GRANTS)
(Thousands of Dollars)

FAA REGION and STATE	Primary		Commercial		Reliever		General Aviation		System Planning	
	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects	Total Federal Funds	Total Projects
TOTAL	<u>545,193.3</u>	<u>387</u>	<u>74,720.0</u>	<u>160</u>	<u>133,495.5</u>	<u>157</u>	<u>158,018.7</u>	<u>409</u>	<u>8,009.2</u>	<u>60</u>
U. S.--Total ¹	<u>542,147.5</u>	<u>383</u>	<u>74,020.0</u>	<u>156</u>	<u>133,495.5</u>	<u>157</u>	<u>154,349.5</u>	<u>407</u>	<u>7,884.5</u>	<u>59</u>
Alaskan--Total	<u>6,697.9</u>	<u>9</u>	<u>10,829.8</u>	<u>11</u>	---	---	<u>26,154.4</u>	<u>18</u>	---	---
Central--Total	<u>29,005.1</u>	<u>18</u>	<u>4,417.0</u>	<u>13</u>	<u>7,776.3</u>	<u>9</u>	<u>12,035.9</u>	<u>30</u>	<u>422.4</u>	<u>3</u>
Iowa	4,313.8	7	757.8	3	172.4	1	4,034.6	7	---	---
Kansas	5,390.0	1	2,306.8	4	379.4	2	2,712.7	8	29.0	1
Missouri	16,010.3	6	456.6	1	6,654.8	5	3,251.5	8	393.4	2
Nebraska	3,291.0	4	895.8	5	569.7	1	2,037.1	7	---	---
Eastern--Total	<u>92,682.5</u>	<u>63</u>	<u>8,611.8</u>	<u>21</u>	<u>17,639.1</u>	<u>30</u>	<u>15,292.6</u>	<u>54</u>	<u>2,032.9</u>	<u>16</u>
Delaware	---	---	180.0	1	483.2	1	---	---	81.0	1
District of Columbia	---	---	---	---	---	---	---	---	203.3	1
Maryland	17,827.5	5	1,064.7	1	5,146.6	5	1,328.3	4	170.9	1
New Jersey	15,283.9	5	961.0	2	3,012.9	3	1,210.0	3	225.0	1
New York	34,159.8	27	2,577.0	8	1,513.9	5	5,185.9	14	554.9	8
Pennsylvania	13,846.8	13	2,088.4	5	4,855.6	11	3,693.0	14	606.8	3
Virginia	9,647.4	9	955.0	2	2,626.9	5	2,927.2	11	191.0	1
West Virginia	1,917.1	4	785.7	2	---	---	948.4	8	---	---

IV. AIRPORT ACTIVITY OF CERTIFICATED ROUTE AIR CARRIERS

The data presented in this chapter were obtained from information reported quarterly to the Department of Transportation's Research and Special Programs Administration (RSPA) by the large scheduled certificated air carriers on Schedules T-3(a)(b)(c), RSPA Form 41, Uniform System of Accounts and Reports for Large Certificated Air Carriers. These statistics summarize domestic and international, scheduled and non scheduled service revenue; passenger enplanements; aircraft departures; and tons of freight, express, and mail enplaned at certificated points in the 50 States, the District of Columbia, other U.S. areas, and foreign countries served by the carriers.

This chapter covers only the large scheduled certificated air carriers;* and thus excludes the charter only, small certificated, commuter, intrastate and foreign-flag air carriers. Note that this chapter covers only a subset of the carriers covered by Chapter VI--U.S. Certificated Air Carriers--Operating Data.

The activity information in Tables 4.5-4.9 is presented by "hubs". Air traffic hubs are not airports; they are the cities or twin cities requiring aviation services. The hubs constitute a primary focal point for the transportation research programs of the FAA, and the analyses of individual cities within an area are treated in relationship to the entire area.

* Large Certificated Air Carrier--carrier holding a certificate issued under Section 401 of the Federal Aviation Act of 1958 and operating aircraft designed to have a maximum passenger seating capacity of more than 60 seats or a maximum payload capacity of more than 18,000 pounds or conducting international operations.

Individual communities fall into four hub classifications as determined by each community's percentage of the total enplaned revenue passengers in all services and all operations of U.S. certificated route air carriers within the 50 States, the District of Columbia, and other U.S. areas. Classifications in this issues are based on 426,816,045 total enplaned revenue passengers.

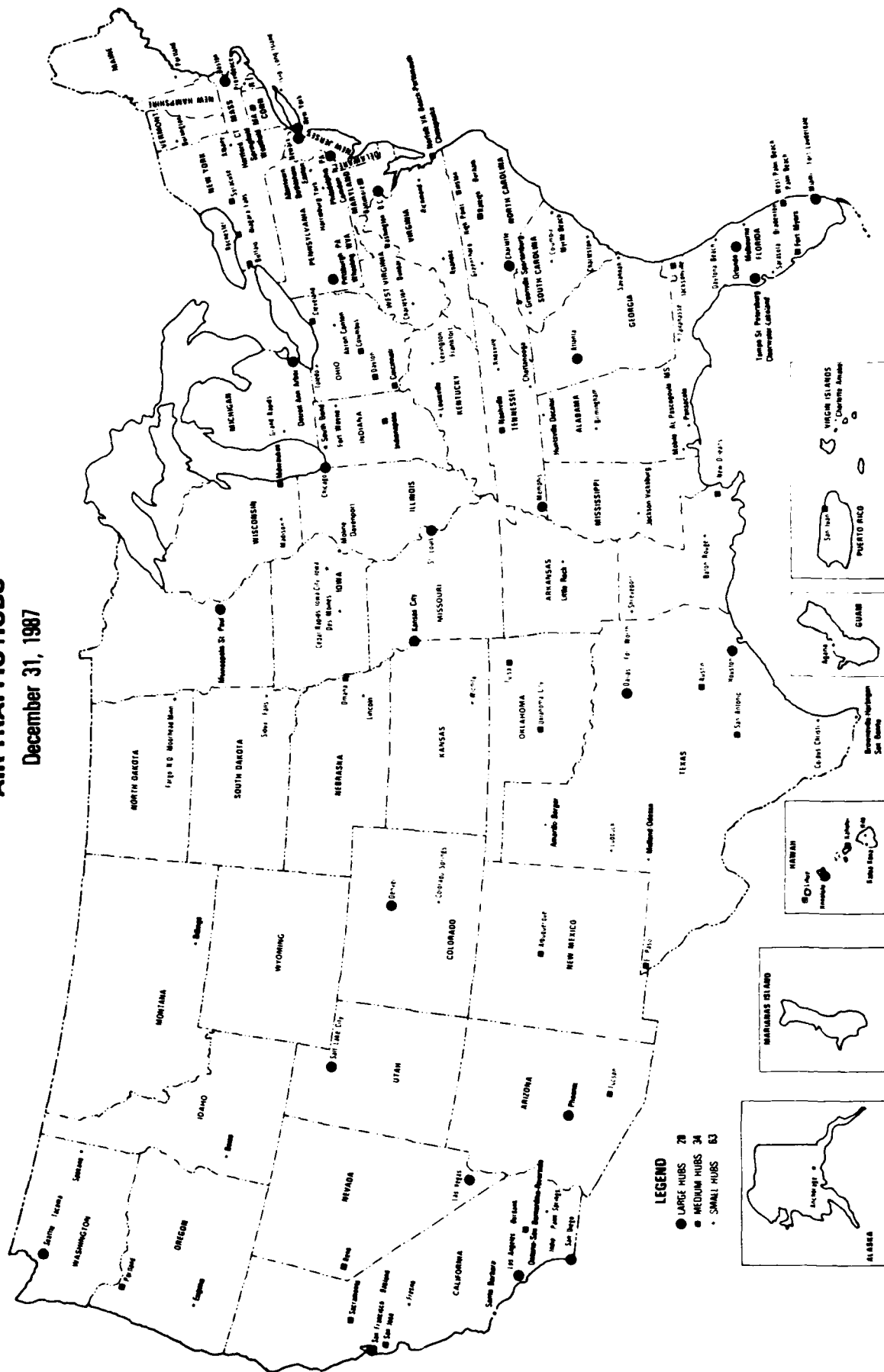
The percentage and number of enplaned passengers in the hub classifications for 12 months ending December 31, 1987 are:

<u>Hub Classification</u>	<u>Percentage of Total Enplaned Passengers</u>	<u>Number of Enplaned Passengers</u>
Large (L)	1.00 or more	4,268,130 or more
Medium (M)	0.25 to 0.99	1,067,040 to 4,268,159
Small (S)	0.05 to 0.24	213,408 to 1,067,039
Nonhub (N)	less than 0.05	less than 213,408

For the 12-month period ending December 31, 1987, there were 125 air traffic hubs. These hubs represented 26.2 percent of the 477 air traffic hubs and non hubs in the 50 States, the District of Columbia, and other U.S. areas receiving air carrier service during the period. The dominance of the hubs in the air traffic patterns is brought out by the fact that of the 426,816,045 passenger enplanements during the period, 97.7 percent (416,988,710) were recorded at the 125 hubs, while the non hubs accounted for only 2.3 percent (9,827,335). Of the 97.7 percent of the passenger enplanements recorded at the hubs, the 28 large hubs accounted for 74.1 percent, the 34 medium hubs accounted for 16.6 percent, and the 63 small hubs accounted for 7.1 percent.

AIR TRAFFIC HUBS

December 31, 1987



LEGEND

- LARGE HUBS 28
- MEDIUM HUBS 34
- SMALL HUBS 63

TABLE 4.1

LARGE SCHEDULED CERTIFICATED AIR CARRIERS
AS OF DECEMBER 31, 1987

Aerial Transit	MGM Grand
Air America	Mid Pacific Airlines
Air California	Midway Airlines
Air Wisconsin	Midwest Express Airlines
Alaska Airlines	Northern Air Cargo
Aloha Airlines	Northwest Airlines
America West Airlines	Pacific Southwest Airlines
American Airlines	Pan American World Airways
American Trans Air	People Express Airlines
Arrow Air	Piedmont Aviation
Aspen Airways	Presidential Airways
Braniff	Reeve Aleutian Airways
Britt Airways	Rosenbalm
Challenge Air Transport	Southwest Airlines
Continental Air Lines	Suncoast
Delta Air Lines	Sunworld International
Eastern Air Lines	Airlines
Federal Express	Tower Air
Florida Express	Transtar Airline
Flying Tiger Line	Trans World Airlines
Hawaiian Airlines	United Air Lines
Horizon Air	U.S. Air
Jet America Airlines	Western Air Lines
Markair	Zantop International Airlines

TABLE 4.2*

AMERICAN FLAG AIRLINE TRAFFIC ENPLANED--SYSTEM TOTAL

LARGE SCHEDULED CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS
1978 - 1987

Year	Enplaned Passengers			Air Carrier Aircraft Departures	Tons of Enplaned Mail	Tons of Enplaned Cargo
	Total	Domestic	Inter- national			
1976	277,583,574	256,088,655	21,494,919	5,047,882	1,106,885.2	3,689,742.4
1979	314,456,936	289,902,853	24,554,083	5,307,981	1,131,534.5	3,584,251.1
1980	296,860,910	272,786,428	24,074,482	5,332,898	1,583,114.3	3,979,762.0
1981	281,379,313	260,937,062	20,442,251	5,136,293	1,220,857.0	3,158,342.5
1982	292,538,822	272,449,376	19,789,450	4,921,628	1,247,351.2	2,951,619.9
1983	319,886,291	297,484,708	22,401,583	5,043,040	1,293,103.6	3,219,495.8
1984	344,831,718	321,136,409	23,695,309	5,449,541	1,389,154.7	3,579,216.1
1985	381,108,118	356,103,027	25,005,091	5,696,217	1,486,900.6	3,415,759.7
1986	418,563,577	393,267,950	25,295,582	6,401,599	2,066,173.6	4,718,544.1
1987	448,913,726	417,869,993	31,043,733	6,640,400	1,621,734.2	5,073,264.9

* Includes operations of certificated all-cargo carriers.

Source: RSPA-FAA Airport Activity Statistics of Certificated Route Air Carriers.

TABLE 4.3*

AMERICAN FLAG AIRLINE TRAFFIC ENPLANED--50 STATES

LARGE SCHEDULED CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS
1978 - 1987

Year	Enplaned Passengers			Air Carrier Aircraft Departures	Tons of Enplaned Mail	Tons of Enplaned Cargo
	Total	Domestic	Inter- national			
1978	261,313,500	253,397,340	7,916,160	4,844,426	1,043,564.5	3,244,108.8
1979	296,132,661	286,980,624	9,252,037	5,094,736	1,071,071.8	3,122,796.4
1980	278,957,991	269,585,572	9,372,419	5,131,204	1,520,132.5	3,504,028.3
1981	263,684,851	256,007,148	7,677,703	4,940,700	1,160,808.6	2,643,964.8
1982	275,540,455	268,118,227	7,422,228	4,716,900	1,185,857.7	2,389,304.9
1983	301,347,773	292,962,603	8,385,170	4,825,467	1,227,581.1	2,558,106.8
1984	325,233,918	316,280,548	8,953,370	5,232,782	1,310,016.9	2,749,633.9
1985	360,710,517	351,346,625	9,363,892	5,476,633	1,416,643.1	2,548,025.1
1986	396,961,967	387,599,481	9,362,486	6,153,247	1,980,248.3	3,728,296.2
1987	422,747,715	411,311,165	11,436,550	6,372,793	1,534,719.8	3,948,060.7

* Includes operations of certificated all-cargo carriers.

Source: RSPA-FAA Airport Activity Statistics of Certificated Route Air Carriers.

TABLE 4.4*
AMERICAN FLAG AIRLINE TRAFFIC ENPLANED--U.S. TERRITORIES
LARGE SCHEDULED CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS
1978 - 1987

Year	Enplaned Passengers			Air Carrier Aircraft Departures	Tons of Enplaned Mail	Tons of Enplaned Cargo
	Total	Domestic	Inter- national			
1978	2,713,246	--	2,713,246	29,040	5,919.4	59,188.7
1979	2,901,802	3,240	2,898,562	31,388	5,660.7	60,788.1
1980	2,450,861	454	2,450,407	25,644	5,992.8	58,159.1
1981	2,221,106	1,807,670	413,436	21,080	6,135.3	56,561.2
1982	2,210,575	1,718,635	491,940	28,414	5,770.7	56,612.0
1983	2,372,861	1,788,115	584,746	34,942	6,035.8	68,088.1
1984	2,537,084	1,888,024	649,060	34,196	6,746.3	69,167.6
1985	2,630,960	1,940,298	690,682	29,026	6,799.9	53,001.9
1986	3,046,033	2,249,694	796,339	38,960	6,856.5	62,206.8
1987	4,068,330	2,940,763	1,127,567	39,690	7,389.6	66,511.0

* Includes operations of certificated all-cargo carriers.

Source: RSPA-FAA Airport Activity Statistics of Certificated Route Air Carriers.

TABLE 4.5*
AMERICAN FLAG AIRLINE TRAFFIC ENPLANED--FOREIGN COUNTRIES
LARGE SCHEDULED CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS
1978 - 1987

Year	Enplaned Passengers			Air Carrier Aircraft Departures	Tons of Enplaned Mail	Tons of Enplaned Cargo
	Total	Domestic	Inter- national			
1978	13,556,828	2,691,315	10,865,513	174,416	57,401.5	386,444.9
1979	15,422,473	3,018,989	12,403,484	181,857	54,902.0	400,667.0
1980	15,452,058	3,200,402	12,251,656	176,050	56,989.0	417,574.6
1981	15,473,356	3,122,244	12,351,112	174,513	53,913.1	457,816.5
1982	14,787,796	2,912,514	11,875,282	176,314	55,722.8	505,703.0
1983	16,165,657	2,733,990	13,431,667	182,631	59,486.7	593,300.9
1984	17,060,716	2,967,837	14,092,879	182,563	72,391.5	760,414.6
1985	17,766,621	2,816,104	14,950,517	190,558	63,477.6	814,732.7
1986	18,555,577	3,418,820	15,136,757	209,392	78,068.8	928,041.1
1987	22,097,681	3,618,065	18,479,616	227,917	79,624.7	1,058,693.2

* Includes operations of certificated all-cargo carriers.

Source: RSPA-FAA Airport Activity Statistics of Certificated Route Air Carriers.

TABLE 4.6
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, BY CARRIER GROUP, AND BY AIR CARRIER
12 MONTHS ENDED DECEMBER 31, 1987

Carrier Group Air Carrier Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons				Foreign mail
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Nonpriority	
							Priority	8		
1	2	3	4	5	6	7	8	9	10	
MAJORS-----										
AMERICAN DOMESTIC-----SCHEDULED	631048	645535	630337	52117318	200275.70		123713.54	4342.22		
NONSCHEDULED	176			17490			50.00			
ALL SERVICES	631224	645535	630337	52134808	200275.70		123763.54	4342.22		
INTERNATIONAL-----SCHEDULED	32548	32958	32459	3455905	48198.75		7593.18	72.56		
NONSCHEDULED	30			3643			400.00			
ALL SERVICES	32578	32958	32459	3459548	48198.75		7993.18	72.56		
TOTAL-----SCHEDULED	663596	678493	662796	55573223	248474.45		131308.70	4414.78		
NONSCHEDULED	208			21133			450.00			
ALL SERVICES	663802	678493	662796	55594356	248474.45		131758.70	4414.78		
CONTINENTAL DOMESTIC-----SCHEDULED	527932	537714	517349	37318028	123490.22	820.09	80679.53	410.29		
NONSCHEDULED	775			104948						
ALL SERVICES	528707	537714	517349	37422976	123490.22	820.09	80679.53	410.29		
INTERNATIONAL-----SCHEDULED	26694	26448	26160	2862324	58951.39	103.01	5271.34	10.29	526.50	
NONSCHEDULED	10			351						
ALL SERVICES	26704	26448	26160	2862675	58951.39	103.01	5271.34	10.29	526.50	
TOTAL-----SCHEDULED	554628	564162	543509	40180352	182441.61	923.10	85950.87	420.58	526.50	
NONSCHEDULED	785			105289						
ALL SERVICES	555411	564162	543509	40285651	182441.61	923.10	85950.87	420.58	526.50	
DELTA DOMESTIC-----SCHEDULED	718697	724319	717736	52397928	264410.40		250221.70	1.04		
NONSCHEDULED	569			26637						
ALL SERVICES	719266	724319	717736	52424565	264410.40		250221.70	1.04		
INTERNATIONAL-----SCHEDULED	13989	14034	13942	1698906	21440.51		1437.63	704.77		
NONSCHEDULED	3			680						
ALL SERVICES	13992	14034	13942	1699586	21440.51		1437.63	704.77		
TOTAL-----SCHEDULED	732686	738353	731678	54096834	285850.91		251659.33	705.81		
NONSCHEDULED	572			27317						
ALL SERVICES	733258	738353	731678	54124151	285850.91		251659.33	705.81		
EASTERN DOMESTIC-----SCHEDULED	493355	503390	485572	41264887	149295.75		177367.95	2368.36		
NONSCHEDULED	383			22609						
ALL SERVICES	493738	503390	485572	41287496	149295.75		177367.95	2368.36		
INTERNATIONAL-----SCHEDULED	34557	35096	34157	3372043	39362.88		3160.07	102.98	33	
NONSCHEDULED	107			7651						
ALL SERVICES	34664	35096	34157	3379694	39362.88		3160.07	102.98	33	
TOTAL-----SCHEDULED	527912	538486	519729	44638930	188658.63		180528.02	2471.34	33	
NONSCHEDULED	490			30260						
ALL SERVICES	528402	538486	519729	44667190	188658.63		180528.02	2471.34	33	

TABLE 4.6
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, BY CARRIER GROUP, AND BY AIR CARRIER
12 MONTHS ENDED DECEMBER 31, 1987

Carrier Group Air Carrier Type of Operation Type of Service	Aircraft departures			Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed		Freight	Express	U.S. Mail		Foreign mail
							Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10
FEDERAL EXPRESS DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	140624 286 140910	140625 140625	140635 140635		1204214.10 6974.27 1211188.37				
INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	7793 66 7859	7793 7793	7793 7793		32838.50 3213.70 36052.20				
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	148417 352 148769	148418 148418	148428 148428		1237052.60 10187.97 1247240.57				
FLYING TIGER DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	16408 33 16441	18142 18142	15774 15774		554957.69 1891.60 556649.29		18670.75 18670.75	4540.71 4540.71	
INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	8764 28 8792	8231 8231	7678 7678		621432.49 2005.76 623438.25		18000.87 18000.87	8872.02 8872.02	
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	25172 61 25233	26373 26373	23452 23452		1176390.18 3697.36 1180087.54		34671.62 34671.62	13412.73 13412.73	
NORTHWEST DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	497288 74 497362	510173 510173	494822 494822	33526633 9772 33536405	225036.83 126.05 225162.88		164117.28 164117.28	1517.37 1517.37	288.98 288.98
INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	19937 139 20076	19991 19991	19548 19548	3720049 14277 3734326	213852.25 2233.63 216085.88		15578.82 15578.82	7253.83 7253.83	1754.15 1754.15
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	517225 213 517438	530164 530164	514370 514370	37246682 24049 37270731	438889.08 2359.68 441248.76		179696.10 179696.10	8771.20 8771.20	2043.13 2043.13
PAN AMERICAN DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	62847 60 62907	64133 64133	62328 62328	5511588 7763 5519351	38286.25 38286.25		16102.01 16102.01	477.55 477.55	20.14 20.14
INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	80519 907 81426	81636 81636	79369 79369	9374441 119978 9494419	159049.78 740.22 159790.00		32093.71 32093.71	5697.18 5697.18	11032.74 11032.74
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	143366 967 144333	145769 145769	141697 141697	14886029 127741 15013770	197336.03 740.22 198076.25		48195.72 48195.72	6174.73 6174.73	11052.88 11052.88

TABLE 4.6
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, BY CARRIER GROUP, AND BY AIR CARRIER
12 MONTHS ENDED DECEMBER 31, 1987

Carrier Group Air Carrier Type of Operation Type of Service	Aircraft departures			Enplaned passengers	Freight	Express	Enplaned revenue tons		
	Total performed	Scheduled	Scheduled completed				U.S. Mail		Foreign mail
							Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10
PIEDMONT									
DOMESTIC-----SCHEDULED	450448	458298	449337	25246921	52949.03		53039.44		
NON-SCHEDULED	383			8671					
ALL SERVICES	450829	458298	449337	25255592	52949.03		53039.44		
INTERNATIONAL-----SCHEDULED	554	554	334	58585	1183.15		15.94		
TOTAL-----SCHEDULED	451000	458852	449671	25305506	54132.18		53055.38		
NON-SCHEDULED	383			8671					
ALL SERVICES	451383	458852	449671	25314177	54132.18		53055.38		
TRANS WORLD									
DOMESTIC-----SCHEDULED	290688	296325	289560	21445214	104120.31		122960.49	1034.36	
NON-SCHEDULED	1599			78143	138.40				
ALL SERVICES	292267	296325	289560	21523357	104258.71		122960.49	1034.36	
INTERNATIONAL-----SCHEDULED	18915	19091	18718	3177221	61315.95		15061.26	5215.84	1098.32
NON-SCHEDULED	3			166					
ALL SERVICES	18918	19091	18718	3177387	61315.95		15061.26	5215.84	1098.32
TOTAL-----SCHEDULED	309583	315416	308278	24622435	165436.26		138021.75	6250.20	1098.32
NON-SCHEDULED	1602			78309	138.40				
ALL SERVICES	311185	315416	308278	24700744	165574.66		138021.75	6250.20	1098.32
UNITED									
DOMESTIC-----SCHEDULED	655592	689350	654027	52741503	368408.49		237493.42	14734.23	3.97
NON-SCHEDULED	952			37112					
ALL SERVICES	656544	689350	654027	52778615	368408.49		237493.42	14734.23	3.97
INTERNATIONAL-----SCHEDULED	14076	14117	13890	2442100	70638.11		7065.22		840.80
TOTAL-----SCHEDULED	689688	683467	667917	55183603	439046.60		244558.64	14734.23	944.77
NON-SCHEDULED	952			37112					
ALL SERVICES	670620	683467	667917	55220715	439046.60		244558.64	14734.23	844.77
US AIR									
DOMESTIC-----SCHEDULED	391427	398250	391220	24772843	25260.71		77670.82		
NON-SCHEDULED	3242			189027					
ALL SERVICES	394669	398250	391220	24961870	25260.71		77670.82		
WESTERN									
DOMESTIC-----SCHEDULED	43972	44814	43882	2786026	15770.88		11702.84	18.26	
INTERNATIONAL-----SCHEDULED	1467	1456	1449	134119	567.20		97.89		
TOTAL-----SCHEDULED	45439	46270	45331	2920145	16338.08		11800.73	18.26	
TOTAL MAJORS									
DOMESTIC-----SCHEDULED	4820304	5011088	4892579	349128889	3326476.36	820.09	1333739.77	29443.35	314.13
NON-SCHEDULED	8532			502172	8930.32		50.00		
ALL SERVICES	4928836	5011088	4892579	349631081	3335406.68	820.09	1333789.77	29443.35	314.13

TABLE 4.6
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, BY CARRIER GROUP, AND BY AIR CARRIER
12 MONTHS ENDED DECEMBER 31, 1987

Carrier Group Air Carrier Type of Operation Type of Service	Aircraft departures			Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed		Freight	Express	U.S. Mail		Foreign mail
							Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10
TOTAL, MAJORS									
INTERNATIONAL-----SCHEDULED	259813	261405	255497	30295893	1328830.96	103.01	103375.91	27224.70	15957.61
NONSCHEDULED	1293			146746	8193.31		400.00		
ALL SERVICES	261106	261405	255497	30442439	1337024.27	103.01	103775.91	27224.70	15957.61
TOTAL-----SCHEDULED	5180117	5272473	5148076	379424582	4655307.32	923.10	1437115.68	56668.05	16271.74
NONSCHEDULED	9825			848918	17123.63		450.00		
ALL SERVICES	5189942	5272473	5148076	380073500	4672430.95	923.10	1437565.68	56668.05	16271.74
NATIONALS-----									
AIR CALIFORNIA									
DOMESTIC-----SCHEDULED	25535	27307	25194	1300924	2145.40		2611.30		
NONSCHEDULED	102			6204					
ALL SERVICES	25637	27307	25194	1307128	2145.40		2611.30		
AIR WISCONSIN									
DOMESTIC-----SCHEDULED	87296	92501	87202	2160010	954.00		613.00		
ALASKA									
DOMESTIC-----SCHEDULED	80489	80740	79893	3907881	39180.78		13601.08	10364.93	.02
NONSCHEDULED	745			28219	250.31		610.84		
ALL SERVICES	81234	80740	79893	3936080	39431.07		14211.70	10364.93	.02
ALOHA									
DOMESTIC-----SCHEDULED	58019	57606	53220	3056105	35821.01		1037.16	121.07	
NONSCHEDULED	11			739					
ALL SERVICES	58030	57606	53220	3056844	35821.01		1037.16	121.07	
AMERICA WEST									
DOMESTIC-----SCHEDULED	177214	179388	176846	11231607	12855.81		4239.34		
AMERICAN TRANS									
DOMESTIC-----SCHEDULED	1794	1794	1794	139740					
NONSCHEDULED	1588			127562					
ALL SERVICES	3382	1794	1794	267302					
BRANIFF									
DOMESTIC-----SCHEDULED	32549	32755	32472	2944429	12642.22	69.15	457.03		
NONSCHEDULED	3133			45278	8046.41				
ALL SERVICES	35682	32755	32472	2989707	20688.63	69.15	457.03		
INTERNATIONAL-----SCHEDULED	1423	1434	1417	121330	604.78				
NONSCHEDULED	191			28715					
ALL SERVICES	1614	1434	1417	150045	604.78				
TOTAL-----SCHEDULED	33972	34189	33889	3085759	13247.00	69.15	457.03		
NONSCHEDULED	3324			73993	8046.41				
ALL SERVICES	37296	34189	33889	3139752	21293.41	69.15	457.03		

TABLE 4.6
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12 MONTHS ENDED DECEMBER 31, 1987

Carrier Group Air Carrier Type of Operation Type of Service	Aircraft departures				Enplaned revenue tons						
	Total performed	Scheduled	Scheduled completed	Enplaned passengers	Freight	Express	U.S. Mail		Foreign mail		
							Priority	Nonpriority			
1	2	3	4	5	6	7	8	9	10		
HAWAIIAN DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	78210 1878 79886	90354 90354 90354	74518 74518 74518	4669885 134364 4804349	14851.16 14851.16 14851.16		5575.26 5575.26 5575.26	366.82 366.82 366.82			
INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	1185 150 1315	1144 1144 1144	1101 1101 1101	102575 30995 133570	1094.16 1094.16 1094.16		847.19 847.19 847.19				
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	79375 1826 81201	91498 91498 91498	75619 75619 75619	4772560 165359 4937919	15945.32 15945.32 15945.32		6422.45 6422.45 6422.45	366.82 366.82 366.82			
JET AMERICA DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	12708 1 12707	12875 12875 12875	12642 12642 12642	788110 147 788257	960.90 960.90 960.90		58.40 58.40 58.40				
MIDWAY DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	65636 207 65843	67373 67373 67373	65462 65462 65462	3618586 6962 3625548							
PACIFIC SOUTHWEST DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	177118 385 177501	179703 179703 179703	176316 176316 176316	11171621 44233 11215854	19146.89 19146.89 19146.89		9539.00 9539.00 9539.00				
SOUTHWEST DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	246045 115 246160	249346 249346 249346	247145 247145 247145	14208181 11762 14219943							
TRANSTAR DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	24513 6 24519	24513 24513 24513	24513 24513 24513	1190128 729 1190857							
ZANTOP DOMESTIC-----SCHEDULED	13729	9738	9665		80866.00						
TOTAL, NATIONALS DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	1078851 7969 1086820	1105993 1105993 1105993	1066682 1066682 1066682	60387287 406199 60793486	219424.15 8296.72 227720.87	69.15 69.15 69.15	37729.55 610.64 38340.19	10852.82 10852.82 10852.82	.02 .02 .02		
INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	2588 341 2929	2578 2578 2578	2518 2518 2518	223905 59710 283615	1698.94 1698.94 1698.94		847.19 847.19 847.19				
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	1081439 8310 1089749	1108571 1108571 1108571	1069200 1069200 1069200	60611192 465909 61077101	221123.08 8296.72 229419.81	69.15 69.15 69.15	38578.74 610.64 39187.38	10852.82 10852.82 10852.82	.02 .02 .02		

TABLE 4.6
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND
MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, BY CARRIER GROUP, AND BY AIR CARRIER
12 MONTHS ENDED DECEMBER 31, 1987

Carrier Group Air Carrier Type of Operation Type of Service	Aircraft departures			Enplaned passengers	Freight	Express	Enplaned revenue tons		
	Total performed	Scheduled	Scheduled completed				U.S. Mail		Foreign mail
							Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10
LARGE REGIONALS-----									
AIR AMERICA-----									
DOMESTIC-----SCHEDULED	978	982	982	265431	2040.00				
NONSCHEDULED	391			118817					
ALL SERVICES	1369	982	982	384248	2040.00				
INTERNATIONAL-----SCHEDULED	57	58	58	8176	278.00				
NONSCHEDULED	7			1527					
ALL SERVICES	64	58	58	9703	278.00				
TOTAL-----SCHEDULED	1035	1040	1040	273607	2318.00				
NONSCHEDULED	398			120344					
ALL SERVICES	1433	1040	1040	393951	2318.00				
ARROW-----SCHEDULED	697	697	697		6405.30				
NONSCHEDULED	185				5163.50				
ALL SERVICES	882	697	697		11568.80				
INTERNATIONAL-----SCHEDULED	310	310	310		6123.30				
NONSCHEDULED	112				2764.20				
ALL SERVICES	422	310	310		8887.50				
TOTAL-----SCHEDULED	1007	1007	1007		12528.80				
NONSCHEDULED	297				7927.70				
ALL SERVICES	1304	1007	1007		20456.30				
ASPEN-----SCHEDULED	30094	30602	29533	335330	917.28		52.25		
NONSCHEDULED	113			2686					
ALL SERVICES	30207	30602	29533	838016	917.28		52.25		
BRITT-----SCHEDULED	42979	51088	42785	376059	16784.04				
NONSCHEDULED	225			2918					
ALL SERVICES	43204	51088	42785	378977	16784.04				
FLORIDA EXPRESS-----SCHEDULED	31541	31970	31541	1185321					
NONSCHEDULED	83			4424					
ALL SERVICES	31624	31970	31541	1189745					
HORIZON-----SCHEDULED	140899	145430	141086	1395338	34097.62		13583.66		
NONSCHEDULED	123			4949					
ALL SERVICES	141022	145430	141086	1400287	34097.62		13583.66		
MARKAIR-----SCHEDULED	15078	16575	14467	299562	15656.75		2349.17	18260.13	
NONSCHEDULED	797			3083	2751.97				
ALL SERVICES	15875	16575	14467	302645	18408.72		2349.17	18260.13	

TABLE 4.6
SUMMARY OF AIRCRAFT DEPARTURES, EMPLOYED REVENUE PASSENGERS, AND EMPLOYED REVENUE TONS OF CARGO AND
MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, BY CARRIER GROUP, AND BY AIR CARRIER
12 MONTHS ENDED DECEMBER 31, 1987

Carrier Group Air Carrier Type of Operation Type of Service	Aircraft departures			Enplaned passengers	Freight	Express	Enplaned revenue tons		Foreign mail
	Total performed	Scheduled	Scheduled completed				Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10
MID PACIFIC DOMESTIC-----SCHEDULED	28532	31169	27235	836710	9480.32		1699.41	290.60	
MIDWEST EXPRESS DOMESTIC-----SCHEDULED	8292	8404	8292	286012	875.00		3.00	1967.00	
NONSCHEDULED ALL SERVICES	61	8404	8292	2280	875.00		3.00	1967.00	
NORTHERN AIR DOMESTIC-----SCHEDULED	7728	7085	6958	288292					
PRESIDENTIAL DOMESTIC-----SCHEDULED	23317	24287	22874	826705	16388.08		592.59	18688.63	
NONSCHEDULED ALL SERVICES	320	24287	22874	23347					
REEVE DOMESTIC-----SCHEDULED	2471	2671	2428	850052					
NONSCHEDULED ALL SERVICES	86	2671	2428	44584	1305.63		2965.59		
ROSENBALM INTERNATIONAL-----SCHEDULED	2557			1224	150.97		34.50		
SUMWORLD DOMESTIC-----SCHEDULED	84		84	45808	1456.60		3000.09		
NONSCHEDULED ALL SERVICES	20184	20442	15180		2884.20		552.60		
TOWER INTERNATIONAL-----SCHEDULED	20193	20442	15180	896975	398.90		552.60		
NONSCHEDULED ALL SERVICES	589	589	589	1687	398.90				
TOTAL, LARGE REGIONALS DOMESTIC-----SCHEDULED	352770	371402	344038	896682					
NONSCHEDULED ALL SERVICES	2413	371402	344038	170842	104348.92		21798.27	39206.36	
INTERNATIONAL-----SCHEDULED	1040	957	1041	7248027	8068.44		34.50		
NONSCHEDULED ALL SERVICES	135	957	1041	185415	112415.36		21832.77	39206.36	
TOTAL-----SCHEDULED	353810	372359	345079	7413442	9285.50				
NONSCHEDULED ALL SERVICES	2548	372359	345079	179018	2764.20				
MEDIUM REGIONALS-----SCHEDULED	356358	372359	345079	238281	12049.70				
AERIAL TRANSIT INTERNATIONAL-----SCHEDULED	98	98	98	7427015	113634.42		21798.27	39206.36	
NONSCHEDULED ALL SERVICES	394	98	98	224678	10830.64		34.50		
	492	98	98	7851723	124465.06		21832.77	39206.36	

TABLE 4.6
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12 MONTHS ENDED DECEMBER 31, 1987

Carrier Group Air Carrier Type of Operation Type of Service	Aircraft departures			Enplaned passengers	Freight	Express	Enplaned revenue tons			Foreign mail
	Total performed	Scheduled	Scheduled completed				U.S. Mail			
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
CHALLENGE AIR INT'L INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	3228 54 3282	3228 3228	3228 3228	73797 4118 77915	40060.00 278.00 40338.00		114.35 114.35			
MGM GRAND DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	413 6 419	413 413	413 413	9074 120 9194	.04 .04		35.00 35.00			
SUNCOAST DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	121 1 122	137 137	121 121	22891 119 22810						
INTERNATIONAL-----SCHEDULED TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	36 157 158	36 173 173	36 157 157	1483 24174 24293						
TOTAL, MEDIUM REGIONALS DOMESTIC-----SCHEDULED ALL SERVICES	534 7 541	550 550	534 534	31765 239 32004	.04 .04		35.00 35.00			
INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	3362 448 3810	3362 3362	3362 3362	75280 4118 79398	40259.80 5897.00 45956.80		114.35 114.35			
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	3898 455 4351	3912 3912	3898 3898	107045 4357 111402	40259.84 5897.00 45956.84		149.35 149.35			
OVER-ALL TOTAL, ALL CARRIERS DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	6352459 18921 6371380	6489013 6489013	6303833 6303833	418795968 1074025 417869993	3650249.47 25293.48 3675542.95	889.24 889.24	1393302.59 895.14 1393997.73	79502.53 79502.53	314.15 314.15	
INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	268803 2217 269020	268302 268302	262418 262418	30773896 269837 31043733	1380075.20 16854.51 1396729.71	103.01 103.01	104337.45 400.00 104737.45	27224.70 27224.70	15957.61 15957.61	
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	6819262 21138 6840400	6757315 6757315	6566251 6566251	447589864 1343862 448913726	5030324.67 41947.99 5072272.66	992.25 992.25	1497840.04 1095.14 1498735.18	106727.23 106727.23	18271.76 18271.76	

TABLE 4.7
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons			
	Total performed	Scheduled	Scheduled completed	Express		U.S. Mail		Foreign mail	
						Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10
50 U. S. STATES-----									
ALABAMA-----									
DOMESTIC-----	39984	40544	39735	1805436	11112.77		3363.75	.03	.10
SCHEDULED	35			2343					
NONSCHEDULED	40019	40544	39735	1807779	11112.77		3363.75	.03	.10
ALL SERVICES									
INTERNATIONAL-----	1			284					
SCHEDULED	3			284					
NONSCHEDULED	4								
ALL SERVICES									
TOTAL-----	39985	40544	39735	1805436	11112.77		3363.75	.03	.10
SCHEDULED	38			2627					
NONSCHEDULED	40023	40544	39735	1808063	11112.77		3363.75	.03	.10
ALL SERVICES									
ALASKA-----									
DOMESTIC-----	68393	69926	64255	1865809	257687.87		15878.48	49131.84	24.90
SCHEDULED	1488			26187	8955.66		73.61		
NONSCHEDULED	67861	69926	64255	1891996	266643.53		15950.08	49131.84	24.90
ALL SERVICES									
INTERNATIONAL-----	1853	1517	1482	1804	94326.91		5181.88	1983.05	15.12
SCHEDULED	26			150					
NONSCHEDULED	1879	1517	1482	1954	94326.91		5181.88	1983.05	15.12
ALL SERVICES									
TOTAL-----	68246	71443	65737	1867813	352014.78		21058.38	51114.89	40.02
SCHEDULED	1494			26337	8955.66		73.61		
NONSCHEDULED	69740	71443	65737	1893950	360970.44		21131.97	51114.89	40.02
ALL SERVICES									
ARIZONA-----									
DOMESTIC-----	158255	158185	155666	10334755	31226.90	.92	15864.97	1.58	
SCHEDULED	653			14590	2212.18				
NONSCHEDULED	158908	158185	155666	10349345	33439.08	.92	15864.97	1.58	
ALL SERVICES									
INTERNATIONAL-----	365	365	364	23095	1.01		.17		
SCHEDULED									
NONSCHEDULED									
ALL SERVICES									
TOTAL-----	158620	158550	156030	10357850	31227.91	.92	15865.14	1.58	
SCHEDULED	653			14590	2212.18				
NONSCHEDULED	157273	158550	156030	10372440	33440.09	.92	15865.14	1.58	
ALL SERVICES									
ARKANSAS-----									
DOMESTIC-----	15116	15262	15082	879535	784.06		3556.24		
SCHEDULED	3			205					
NONSCHEDULED	15119	15262	15082	879740	784.06		3556.24		
ALL SERVICES									
CALIFORNIA-----									
DOMESTIC-----	662385	676949	658271	50132775	562088.52	307.90	141478.84	4328.60	10.85
SCHEDULED	2338			122417	2815.67		33.68		
NONSCHEDULED	664723	676949	658271	50255192	564904.19	307.90	141512.50	4328.60	10.85
ALL SERVICES									
INTERNATIONAL-----	7444	7472	7408	1130198	24415.82		4713.27	578.87	17.33
SCHEDULED	20			400	1263.53				
NONSCHEDULED	7464	7472	7408	1130598	25679.35		4713.27	578.87	17.33
ALL SERVICES									

TABLE 4.7
SUMMARY OF AIRCRAFT DEPARTURES, EMPLOYED REVENUE PASSENGERS, AND EMPLOYED REVENUE TONS OF CARGO AND
MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures			Enplaned passengers	Freight	Express	Enplaned revenue tons			
	Total performed	Scheduled	Scheduled completed				U.S. Mail	Priority	Nonpriority	Foreign mail
1	2	3	4	5	6	7	8	9	10	
CALIFORNIA TOTAL -----SCHEDULED NONSCHEDULED ALL SERVICES	669829 2358 672187	684421 684421	665679 665679	51262973 122817 51385790	588504.34 4079.20 590583.54	307.90 307.90	148192.11 33.68 148225.77	4907.47 4907.47	28.18 28.18	
COLORADO DOMESTIC -----SCHEDULED NONSCHEDULED ALL SERVICES	228101 228 228329	232292 232292	225617 225617	16740170 9088 16749258	69253.66 3.50 69257.16	19.80 19.80	51760.53 51760.53	623.85 623.85		
INTERNATIONAL -----SCHEDULED	101	104	100	19042	241.38		.11			
TOTAL -----SCHEDULED NONSCHEDULED ALL SERVICES	228202 228 228430	232396 232396	225717 225717	16759212 9088 16768300	69495.04 3.50 69498.54	19.80 19.80	51760.64 51760.64	623.85 623.85		
CONNECTICUT DOMESTIC -----SCHEDULED NONSCHEDULED ALL SERVICES	31284 47 31331	31804 31804	31063 31063	2284848 2583 2287431	9890.54 9890.54	.37 .37	14882.71 14882.71	623.00 623.00		
INTERNATIONAL -----SCHEDULED	13	1	2	255	.02					
TOTAL -----SCHEDULED NONSCHEDULED ALL SERVICES	31297 47 31344	31805 31805	31065 31065	2285103 2583 2287686	9890.56 9890.56	.37 .37	14882.71 14882.71	623.00 623.00		
DELAWARE DOMESTIC -----SCHEDULED	553	676	549	2262	226.06					
DIST. OF COL. DOMESTIC -----SCHEDULED NONSCHEDULED ALL SERVICES	185039 142 185181	189413 189413	182406 182406	11787573 6360 11793933	49676.62 49676.62	12.65 12.65	47220.28 47220.28	1989.33 1989.33	2.19 2.19	
INTERNATIONAL -----SCHEDULED NONSCHEDULED ALL SERVICES	1283 2 1285	1327 1327	1273 1273	235932 146 236078	3745.22 3745.22		4697.28 4697.28	.37 .37		
TOTAL -----SCHEDULED NONSCHEDULED ALL SERVICES	186322 144 186466	190740 190740	183879 183879	12023505 6506 12030011	53421.84 53421.84	12.65 12.65	51917.56 51917.56	1989.70 1989.70	2.19 2.19	
FLORIDA DOMESTIC -----SCHEDULED NONSCHEDULED ALL SERVICES	405175 2062 407237	411606 411606	403018 403018	30355080 191908 30546988	143081.78 3209.48 146291.24	2.23 2.23	59101.78 59101.78	1357.24 1357.24	13.09 13.09	
INTERNATIONAL -----SCHEDULED NONSCHEDULED ALL SERVICES	17230 583 17813	17544 17544	17077 17077	2009119 9240 2018359	56930.13 7570.20 64500.33		4660.34 4660.34	837.20 837.20	6.30 6.30	

TABLE 4.7
SUMMARY OF AIRCRAFT DEPARTURES, EMPLOYED REVENUE PASSENGERS, AND EMPLOYED REVENUE TONS OF CARGO AND
MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons					Foreign mail
	Total performed	Scheduled	Scheduled completed	4		5	Freight	Express	U.S. Mail		
									Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10		
FLORIDA.....											
TOTAL.....	422405	429150	420095	32364199	200011.89	2.23	63762.12	2194.44	19.39		
SCHEDULED.....	2645			201148	10779.68						
NONSCHEDULED.....	425050	429150	420095	32565347	210791.57	2.23	63762.12	2194.44	19.39		
ALL SERVICES.....											
GEORGIA.....											
DOMESTIC.....	295457	300721	294732	22938623	131417.90	.12	117637.57	57.22	.01		
SCHEDULED.....	311			10109							
NONSCHEDULED.....	295768	300721	294732	22948732	131417.90	.12	117637.57	57.22	.01		
ALL SERVICES.....											
INTERNATIONAL.....	3455	3468	3444	493122	6652.27		1053.69				
SCHEDULED.....	6			257							
NONSCHEDULED.....	3461	3468	3444	493379	6652.27		1053.69				
ALL SERVICES.....											
TOTAL.....	298912	304189	298176	23431745	138070.17	.12	118691.26	57.22	.01		
SCHEDULED.....	317			10366							
NONSCHEDULED.....	299229	304189	298176	23442111	138070.17	.12	118691.26	57.22	.01		
ALL SERVICES.....											
HAWAII.....											
DOMESTIC.....	176530	190809	168878	11632293	157306.40	50.96	15755.21	1473.91			
SCHEDULED.....	1147			86887							
NONSCHEDULED.....	177677	190809	168878	11719180	157306.40	50.96	15755.21	1473.91			
ALL SERVICES.....											
INTERNATIONAL.....	3418	3408	3360	726429	15581.38	6.87	5467.18	182.99	1.83		
SCHEDULED.....	88			17936							
NONSCHEDULED.....	3504	3408	3360	744365	15581.38	6.87	5467.18	182.99	1.83		
ALL SERVICES.....											
TOTAL.....	179946	194217	172238	12358722	172887.78	57.83	21222.39	1656.90	1.83		
SCHEDULED.....	1235			104823							
NONSCHEDULED.....	181181	194217	172238	12463545	172887.78	57.83	21222.39	1656.90	1.83		
ALL SERVICES.....											
IDAHO.....											
DOMESTIC.....	32361	33086	32155	680932	8001.44		6697.14	.01			
SCHEDULED.....	19			885	1.50						
NONSCHEDULED.....	32380	33086	32155	681817	8002.94		6697.14	.01			
ALL SERVICES.....											
ILLINOIS.....											
DOMESTIC.....	405975	423812	404879	28870535	300306.84	6.85	126508.82	6591.19	9.33		
SCHEDULED.....	628			21244							
NONSCHEDULED.....	406607	423812	404879	28891779	300306.84	6.85	126508.82	6591.19	9.33		
ALL SERVICES.....											
INTERNATIONAL.....	3024	3047	3012	399765	8189.26		3486.54	21.47	3.63		
SCHEDULED.....	7			132	260.99						
NONSCHEDULED.....	3031	3047	3012	399897	8450.25		3486.54	21.47	3.63		
ALL SERVICES.....											
TOTAL.....	409003	426859	407891	29270300	308496.10	6.85	129975.36	6612.66	12.96		
SCHEDULED.....	635			21376	260.99						
NONSCHEDULED.....	409638	426859	407891	29291676	308757.08	6.85	129975.36	6612.66	12.96		
ALL SERVICES.....											
INDIANA.....											
DOMESTIC.....	65416	66737	64477	2891927	17734.65	.20	11372.16	2.35			
SCHEDULED.....	1037			46594							
NONSCHEDULED.....	66453	66737	64477	2938521	17734.65	.20	11372.16	2.35			
ALL SERVICES.....											

TABLE 4.7
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed			Freight	Express	U.S. Mail		Foreign mail
								Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10	
INDIANA										
INTERNATIONAL-----SCHEDULED	4									
TOTAL	65420	66737	64477	2891927	17734.65	.20	11372.16	2.35		
NONSCHEDULED	1037			48594						
ALL SERVICES	66457	66737	64477	2938521	17734.65	.20	11372.16	2.35		
IOWA										
DOMESTIC-----SCHEDULED	35305	36446	35104	1240814	7370.26	.04	7472.49			
NONSCHEDULED	91			4039						
ALL SERVICES	35396	36446	35104	1244853	7370.26	.04	7472.49			
KANSAS										
DOMESTIC-----SCHEDULED	17220	17614	17080	672579	9810.84	5.46	2788.51	.55		
NONSCHEDULED	15			151						
ALL SERVICES	17235	17614	17080	672730	9810.84	5.46	2788.51	.55		
KENTUCKY										
DOMESTIC-----SCHEDULED	37847	38540	37728	1368404	9754.17		8319.07	.01		
NONSCHEDULED	62			2772						
ALL SERVICES	37909	38540	37728	1371176	9754.17		8319.07	.01		
LOUISIANA										
DOMESTIC-----SCHEDULED	68322	69153	68003	4126289	21196.36	.53	10120.46			
NONSCHEDULED	104			5957						
ALL SERVICES	68426	69153	68003	4132246	21196.36	.53	10120.46			
INTERNATIONAL-----SCHEDULED	401	401	388	27262	16.34		.02			
TOTAL	68723	69554	68391	4153551	21212.70	.53	10120.48			
NONSCHEDULED	104			5957						
ALL SERVICES	68827	69554	68391	4159508	21212.70	.53	10120.48			
MAINE										
DOMESTIC-----SCHEDULED	11385	11569	11353	715744	3354.70	23.33	1569.80			
NONSCHEDULED	5			198						
ALL SERVICES	11390	11569	11353	715940	3354.70	23.33	1569.80			
INTERNATIONAL-----SCHEDULED	56		1	100						
NONSCHEDULED	14			100						
ALL SERVICES	70		1							
TOTAL	11441	11569	11354	715744	3354.70	23.33	1569.80			
NONSCHEDULED	19			296						
ALL SERVICES	11460	11569	11354	716040	3354.70	23.33	1569.80			
MARYLAND										
DOMESTIC-----SCHEDULED	63605	64566	63163	3948701	14905.67	.10	15995.64	735.48		
NONSCHEDULED	139			4104						
ALL SERVICES	63744	64566	63163	3952805	14905.67	.10	15995.64	735.49		
INTERNATIONAL-----SCHEDULED	594	611	590	57126	600.88		528.42	16.11		

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12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures			Enplaned passengers	Freight	Express	Enplaned revenue tons		
	Total performed	Scheduled	Scheduled completed				Priority	U.S. Mail Nonpriority	Foreign mail
1	2	3	4	5	6	7	8	9	10
MARYLAND									
TOTAL	64199	65177	63753	4005827	15506.56	.10	18524.06	751.60	
DOMESTIC	139			4104					
ALL SERVICES	64338	65177	63753	4009931	15506.56	.10	18524.06	751.60	
MASSACHUSETTS									
DOMESTIC	117938	119401	115781	9934449	98462.20	.50	31083.42	774.52	78.02
ALL SERVICES	344			20714	120.10				
INTERNATIONAL	118282	119401	115781	9955163	98582.30	.50	31083.42	774.52	78.02
ALL SERVICES	2634	2660	2599	400436	7766.65		968.18	5.24	
NON SCHEDULED	1			176					
ALL SERVICES	2635	2660	2599	400612	7766.65		968.18	5.24	
TOTAL	120572	122061	118380	10334885	106228.85	.50	32051.60	779.76	78.02
NON SCHEDULED	345			20890	120.10				
ALL SERVICES	120917	122061	118380	10355775	106348.95	.50	32051.60	779.76	78.02
MICHIGAN									
DOMESTIC	164088	168441	163979	10284754	56959.56	4.26	39205.87	37.41	3.01
ALL SERVICES	419			59942	211.00				
INTERNATIONAL	164507	168441	163979	10344696	57170.56	4.26	39205.87	37.41	3.01
ALL SERVICES	540	563	537	94576	1712.45		479.59	.85	
NON SCHEDULED	1			140					
ALL SERVICES	541	563	537	94716	1712.45		479.59	.85	
TOTAL	164628	169004	164516	10379330	58672.01	4.26	39685.46	38.26	3.01
NON SCHEDULED	420			60082	211.00				
ALL SERVICES	165048	169004	164516	10439412	58863.01	4.26	39685.46	38.26	3.01
MINNESOTA									
DOMESTIC	114314	116918	113987	8379012	52217.74	1.86	46487.92	32.43	142.37
ALL SERVICES	318			54059	11.45				
INTERNATIONAL	114632	116918	113987	8433071	52229.19	1.86	46487.92	32.43	142.37
ALL SERVICES	307	305	302	85023	1898.24		147.60	.48	
NON SCHEDULED	15								
ALL SERVICES	322	305	302	85023	1898.24		147.60	.48	
TOTAL	114621	117223	114289	8464035	54115.98	1.86	46635.52	32.43	142.85
NON SCHEDULED	333			54059	11.45				
ALL SERVICES	114954	117223	114289	8518094	54127.43	1.86	46635.52	32.43	142.85
MISSISSIPPI									
DOMESTIC	11578	11666	11539	505088	706.53		1775.72		
ALL SERVICES	6			192					
INTERNATIONAL	11584	11666	11539	505280	706.53		1775.72		
ALL SERVICES									
TOTAL	206709	210666	205557	14279592	60597.56	16.93	69921.78	158.80	
NON SCHEDULED	552			21347					
ALL SERVICES	207311	210666	205557	14300939	60597.56	16.93	69921.78	158.80	

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12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons			
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail
							Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10
MISSOURI									
INTERNATIONAL	404	406	402	62367	712.34		488.39		
TOTAL	207113	211072	205959	14341959	61309.90	16.93	70410.17	158.80	
NONSCHEDULED ALL SERVICES	592	21347		21347	61309.90	16.93	70410.17	158.80	
207705		211072	205959	14363306					
MONTANA									
DOMESTIC	38069	38830	37862	742582	7520.75		3040.39		
NONSCHEDULED ALL SERVICES	9	38830	37862	253	7520.75		3040.39		
38078				742835					
INTERNATIONAL	1								
TOTAL	38070	38830	37862	742582	7520.75		3040.39		
NONSCHEDULED ALL SERVICES	9	38830	37862	253	7520.75		3040.39		
38079				742835					
NEBRASKA									
DOMESTIC	28337	28630	27931	1298648	3879.16	.01	9997.44	7.50	
NONSCHEDULED ALL SERVICES	44	28630	27931	3063	3879.16	.01	9997.44	7.50	
28381				1301711					
NEVADA									
DOMESTIC	119659	120831	116505	8316059	9008.63	3.29	6814.23	.71	
NONSCHEDULED ALL SERVICES	1182	120831	116505	104163	2529.85	3.29	6814.23	.71	
120841				8420222	11538.48				
INTERNATIONAL	3								
TOTAL	119662	120831	116505	8316059	9008.63	3.29	6814.23	.71	
NONSCHEDULED ALL SERVICES	1182	120831	116505	104163	2529.85	3.29	6814.23	.71	
120844				8420222	11538.48				
NEW HAMPSHIRE									
DOMESTIC	2754	2800	2752	110071	752.48		789.30		
NONSCHEDULED ALL SERVICES	31	2800	2752	1430	752.48		789.30		
2785				111501					
NEW JERSEY									
DOMESTIC	135183	137231	132345	11059347	113632.27	2.46	28626.31	1717.96	
NONSCHEDULED ALL SERVICES	200	137231	132345	12400	1122.29	2.46	28626.31	1717.96	
135383				11071747	114754.56				
INTERNATIONAL	1425	1428	1406	223511	14769.83		88.34		
TOTAL	136608	138659	133751	11282858	128402.10	2.46	28714.65	1717.96	
NONSCHEDULED ALL SERVICES	200	138659	133751	12400	1122.29	2.46	28714.65	1717.96	
136808				11295258	129524.39				

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12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performer ¹	Scheduled	Scheduled completed			Freight	Express	U.S. Mail		Foreign mail
								Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10	
NEW MEXICO										
DOMESTIC										
SCHEDULED	36405	36765	36258	2109942	3912.29		4579.55	2.35		
NONSCHEDULED	22			2106						
ALL SERVICES	36427	36765	36258	2112048	3912.29		4579.55	2.35		
INTERNATIONAL	1				50.73					
SCHEDULED										
NONSCHEDULED	36406	36765	36258	2109942	3963.02		4579.55	2.35		
ALL SERVICES	36428	36765	36258	2112048	3963.02		4579.55	2.35		
NEW YORK										
DOMESTIC										
SCHEDULED	311616	317425	307615	23741342	176659.78	5.96	87550.78	5437.90	13.48	
NONSCHEDULED	1123			52907	860.67					
ALL SERVICES	312739	317425	307615	23794249	177520.45	5.96	87550.78	5437.90	13.48	
INTERNATIONAL										
SCHEDULED	18733	19090	18662	3793941	64695.06		25798.70	4393.51	20.60	
NONSCHEDULED	66			61609	1020.89					
ALL SERVICES	18799	19090	18662	3855550	65715.95		25798.70	4393.51	20.60	
TOTAL										
SCHEDULED	330349	338515	326277	27535283	241354.84	5.96	113349.48	9831.41	34.08	
NONSCHEDULED	1189			114516	1881.56					
ALL SERVICES	331538	338515	326277	27649799	243236.40	5.96	113349.48	9831.41	34.08	
NORTH CAROLINA										
DOMESTIC										
SCHEDULED	179583	182554	178691	9993579	56655.84	.04	25156.30	9.50		
NONSCHEDULED	219			5205						
ALL SERVICES	179802	182554	178691	9998784	56655.84	.04	25156.30	9.50		
INTERNATIONAL										
SCHEDULED	231	230	57	24342	495.77		15.96			
NONSCHEDULED										
ALL SERVICES	179814	182784	178748	10017921	57151.61	.04	25172.26	9.50		
TOTAL										
SCHEDULED	180033	182784	178748	10023126	57151.61	.04	25172.26	9.50		
NONSCHEDULED										
ALL SERVICES										
NORTH DAKOTA										
DOMESTIC										
SCHEDULED	14013	14127	13878	520330	2159.75		1467.57	.13		
OHIO										
DOMESTIC										
SCHEDULED	204497	208487	203518	10761987	136827.99	.33	43712.71	289.46		
NONSCHEDULED	637			20451	177.30					
ALL SERVICES	205134	208487	203518	10782438	137005.29	.33	43712.71	289.46		
INTERNATIONAL										
SCHEDULED	206	200	204	27776	501.27		.95			
NONSCHEDULED										
ALL SERVICES										
TOTAL										
SCHEDULED	204703	208687	203722	10789763	137329.26	.33	43713.66	289.46		
NONSCHEDULED	637			20451	177.30					
ALL SERVICES	205340	208687	203722	10810214	137506.56	.33	43713.66	289.46		
OKLAHOMA										
DOMESTIC										
SCHEDULED	55744	56707	55178	2891699	14281.25	1.47	9152.79	.55		
NONSCHEDULED	58			2787	31.30					
ALL SERVICES	55800	56707	55178	2894486	14312.55	1.47	9152.79	.55		

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State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed			Freight	Express	U.S. Mail		Foreign mail
								Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10	
OREGON										
DOMESTIC										
SCHEDULED	95701	97656	95215	3330162	40564.35	27.55	10598.37	22.04	.03	
NONSCHEDULED	335			9039			174.41			
ALL SERVICES	96036	97656	95215	3339201	40564.35	27.55	10772.78	22.04	.03	
INTERNATIONAL										
SCHEDULED	258	261	258	22724	1277.11		39.56			
TOTAL	95959	97917	95473	3352886	41841.46	27.55	10637.93	22.04	.03	
NONSCHEDULED	335			9039			174.41			
ALL SERVICES	96294	97917	95473	3361925	41841.46	27.55	10812.34	22.04	.03	
PENNSYLVANIA										
DOMESTIC						.05	72851.74	908.02	4.88	
SCHEDULED	240068	244315	239251	15584429	73964.79		72851.74	908.02	4.88	
NONSCHEDULED	739			43015	62.92					
ALL SERVICES	240807	244315	239251	15627444	74027.71	.05	72851.74	908.02	4.88	
INTERNATIONAL										
SCHEDULED	802	814	788	74153	359.60		121.23	8.62		
NONSCHEDULED	1									
ALL SERVICES	803	814	788	74153	359.60		121.23	8.62		
TOTAL	240870	245129	240039	15658582	74324.38	.05	72772.97	918.84	4.88	
NONSCHEDULED	740			43015	62.92					
ALL SERVICES	241610	245129	240039	15701597	74387.31	.05	72772.97	918.84	4.88	
RHODE ISLAND										
DOMESTIC										
SCHEDULED	13115	13383	13065	862164	2785.77		2112.70	.15		
NONSCHEDULED	36			1914						
ALL SERVICES	13151	13383	13065	864078	2785.77		2112.70	.15		
SOUTH CAROLINA										
DOMESTIC										
SCHEDULED	39911	40601	39487	1965945	2933.81		5624.64	.01		
NONSCHEDULED	35			1095						
ALL SERVICES	39946	40601	39487	1967040	2933.81		5624.64	.01		
SOUTH DAKOTA										
DOMESTIC										
SCHEDULED	13269	13483	13133	422639	1392.41		1891.97	.09		
NONSCHEDULED	6			444						
ALL SERVICES	13275	13483	13133	423083	1392.41		1891.97	.09		
TENNESSEE										
DOMESTIC										
SCHEDULED	183754	185853	183033	8940534	524564.23		32579.24	1.33	1.53	
NONSCHEDULED	166			6640	203.67					
ALL SERVICES	183920	185853	183033	8947174	524767.90		32579.24	1.33	1.53	
INTERNATIONAL										
SCHEDULED	2									
TOTAL	183756	185853	183033	8940534	524564.23		32579.24	1.33	1.53	
NONSCHEDULED	166			6640	203.67					
ALL SERVICES	183922	185853	183033	8947174	524767.90		32579.24	1.33	1.53	

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12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
TEXAS.....										
DOMESTIC-----SCHEDULED	555780	582083	554012	40350844	174176.38	389.13	107232.96	1028.91	1.57	
NONSCHEDULED	599			40235	95.28		50.00			
ALL SERVICES	556379	582083	554012	40391079	174271.66	389.13	107282.96	1028.91	1.57	
INTERNATIONAL-----SCHEDULED	9324	9307	9255	1073290	12347.36	3.02	1141.86	13.91		
NONSCHEDULED	192			28856						
ALL SERVICES	9516	9307	9255	1102146	12347.36	3.02	1141.86	13.91		
TOTAL-----SCHEDULED	565104	571390	563287	41424134	186523.74	392.15	108374.82	1040.82	1.57	
NONSCHEDULED	791			69091	95.28		50.00			
ALL SERVICES	565895	571390	563287	41493225	186619.02	392.15	108424.82	1040.82	1.57	
UTAH.....										
DOMESTIC-----SCHEDULED	74596	75654	74735	4727796	27845.10	.01	16514.38	3.05		
NONSCHEDULED	16			799						
ALL SERVICES	74612	75654	74735	4728595	27845.10	.01	16514.38	3.05		
INTERNATIONAL-----SCHEDULED	1									
TOTAL-----SCHEDULED	74597	75654	74735	4727796	27845.10	.01	16514.38	3.05		
NONSCHEDULED	16			799						
ALL SERVICES	74613	75654	74735	4728595	27845.10	.01	16514.38	3.05		
VERMONT.....										
DOMESTIC-----SCHEDULED	6763	6889	6715	361881	1398.45		895.75			
NONSCHEDULED	2									
ALL SERVICES	6765	6889	6715	361881	1398.45		895.75			
VIRGINIA.....										
DOMESTIC-----SCHEDULED	84228	85515	63860	2791554	7432.56	.03	6875.07	.52		
NONSCHEDULED	84			2815						
ALL SERVICES	84312	85515	63860	2794369	7432.56	.03	6875.07	.52		
WASHINGTON.....										
DOMESTIC-----SCHEDULED	168717	172008	167939	7672230	106804.08	1.42	35256.08	247.00	7.93	
NONSCHEDULED	679			20931	721.96		363.46			
ALL SERVICES	169396	172008	167939	7693161	107526.04	1.42	35619.54	247.00	7.93	
INTERNATIONAL-----SCHEDULED	1589	1579	1567	311836	8211.77		2712.00	130.34	170.53	
NONSCHEDULED	5				204.66					
ALL SERVICES	1594	1579	1567	311836	8416.43		2712.00	130.34	170.53	
TOTAL-----SCHEDULED	170306	173587	169506	7984068	115015.85	1.42	37968.08	377.34	178.46	
NONSCHEDULED	684			20931	926.62		363.46			
ALL SERVICES	170990	173587	169506	8004997	115942.47	1.42	38331.54	377.34	178.46	
WEST VIRGINIA.....										
DOMESTIC-----SCHEDULED	9229	9506	9190	300571	833.11		326.75			
NONSCHEDULED	13			512						
ALL SERVICES	9242	9506	9190	301083	833.11		326.75			

TABLE 4.7
SUMMARY OF AIRCRAFT DEPARTURES, EMPANED REVENUE PASSENGERS, AND EMPANED REVENUE TONS OF CARGO AND
MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
WISCONSIN										
DOMESTIC-----SCHEDULED	59900	61402	59365	2556357	12176.53	.13	7882.30	926.90		
NONSCHEDULED	114			5062						
ALL SERVICES	60014	61402	59365	2561419	12176.53	.13	7882.30	926.90		
WYOMING										
DOMESTIC-----SCHEDULED	12267	12510	12200	208204	705.69		264.06			
NONSCHEDULED	5			151						
ALL SERVICES	12272	12510	12200	208355	705.69		264.06			
TOTAL FOR 50 U. S. STATES										
DOMESTIC-----SCHEDULED	6277497	6412047	6227790	410258875	3587999.03	886.89	1385010.54	78521.24	313.29	
NONSCHEDULED	18565			1052290	23345.78		695.14			
ALL SERVICES	6296062	6412047	6227790	411311165	3611344.81	886.89	1385705.68	78521.24	313.29	
INTERNATIONAL-----SCHEDULED	75701	76108	74538	11317124	325498.81	9.89	61771.26	8172.53	235.82	
NONSCHEDULED	1030			119426	10320.27					
ALL SERVICES	76731	76108	74538	11436550	335819.08	9.89	61771.26	8172.53	235.82	
TOTAL-----SCHEDULED	6353198	6488155	6302328	421575999	3913497.84	896.78	1446781.80	86693.77	549.11	
NONSCHEDULED	19595			1171716	33686.05		695.14			
ALL SERVICES	6372793	6488155	6302328	422747715	3947163.89	896.78	1447476.94	86693.77	549.11	
OTHER U. S. AREAS-----										
AMERICAN SAMOA										
INTERNATIONAL-----SCHEDULED	419	408	402	37662	328.76		88.57			
NONSCHEDULED	2			262						
ALL SERVICES	421	408	402	37924	328.76		88.57			
CAROLINE ISLANDS										
INTERNATIONAL-----SCHEDULED	1849	1866	1826	54060	828.56	1.33	146.46			
GUAM										
INTERNATIONAL-----SCHEDULED	3151	3106	3072	351729	6643.23	86.84	1604.14	20.58	3.38	
NONSCHEDULED	67			13377						
ALL SERVICES	3218	3106	3072	365106	6643.23	86.84	1604.14	20.58	3.38	
JOHNSTON ISLAND										
INTERNATIONAL-----SCHEDULED	243	245	243	292	4.28		7.25			
MARIANA ISLANDS										
INTERNATIONAL-----SCHEDULED	2279	2231	2206	133117	1054.13	.48	75.99	.34		
NONSCHEDULED	6			351						
ALL SERVICES	2285	2231	2206	133468	1054.13	.48	75.99	.34		
MARSHALL ISLANDS										
DOMESTIC-----SCHEDULED	1	1	1							
INTERNATIONAL-----SCHEDULED	768	773	765	14208	94.28	.01	109.66			
TOTAL-----SCHEDULED	769	774	766	14208	94.28	.01	109.66			

TABLE 4.7
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MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Freight	Express	Enplaned revenue tons			Foreign mail
	Total performed	Scheduled	Scheduled completed	U.S. Mail				Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10		
MIDWAY ISLAND INTE NATIONAL-----SCHEDULED	1										
PUERTO RICO DOMESTIC-----SCHEDULED	18222	18612	18117	2600314	48875.77		4244.23	600.55			
ALL SERVICES	81			1482	1947.70						
	18303	18612	18117	2601796	50823.47		4244.23	600.55			
INTERNATIONAL-----SCHEDULED	5009	5136	4984	423218	5875.09		60.40	.20			
NONSCHEDULED	4			320	2.10						
ALL SERVICES	5013	5136	4984	423538	5877.19		60.40	.20			
TOTAL-----SCHEDULED	23231	23748	23101	3023532	54750.86		4304.63	600.75			
NONSCHEDULED	85			1802	1949.80						
ALL SERVICES	23316	23748	23101	3025334	56700.66		4304.63	600.75			
VIRGIN ISLANDS, U. S. DOMESTIC-----SCHEDULED	5813	5961	5765	338967	284.29		297.06	52.36			
INTERNATIONAL-----SCHEDULED	1773	1767	1723	98924	484.17		8.12	70.06	.30		
NONSCHEDULED	2			47							
ALL SERVICES	1775	1767	1723	98971	484.17		8.12	70.06	.30		
TOTAL-----SCHEDULED	7586	7728	7488	437891	768.46		305.18	122.42	.30		
NONSCHEDULED	2			47							
ALL SERVICES	7588	7728	7488	437938	768.46		305.18	122.42	.30		
TOTAL FOR OTHER U. S. AREAS											
DOMESTIC-----SCHEDULED	24036	24574	23883	2939281	49160.06		4541.29	652.91			
NONSCHEDULED	81			1482	1947.70						
ALL SERVICES	24117	24574	23883	2940763	51107.76		4541.29	652.91			
INTERNATIONAL-----SCHEDULED	15492	15532	15221	1113210	15312.50	88.66	2100.59	91.18	3.68		
NONSCHEDULED	81			14357	2.10						
ALL SERVICES	15573	15532	15221	1127567	15314.60	88.66	2100.59	91.18	3.68		
TOTAL-----SCHEDULED	39528	40106	39104	4052491	64472.56	88.66	6641.88	744.09	3.68		
NONSCHEDULED	162			15839	1949.80						
ALL SERVICES	39690	40106	39104	4068330	66422.36	88.66	6641.88	744.09	3.68		
FOREIGN COUNTRIES-----											
ARGENTINA DOMESTIC-----SCHEDULED	1	380	368	12730	11.39		2.18				
INTERNATIONAL-----SCHEDULED	1501	1570	1491	146589	8079.11		18.39	6.28	9.82		
TOTAL-----SCHEDULED	1502	1950	1859	159319	8090.50		20.57	6.28	9.82		
AUSTRALIA INTERNATIONAL-----SCHEDULED	1976	1972	1911	311324	20257.25		163.12	1.85	95.16		

TABLE 4.7
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MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

12 MONTHS ENDED DECEMBER 31, 1967

State or Country Type of Operation Type of Service	Aircraft departures			Enplaned passengers	Freight	Express	Enplaned revenue tons			Foreign mail
	Total performed	Scheduled	Scheduled completed				U.S. Mail	Priority	Nonpriority	
I	2	3	4	5	6	7	8	9	10	
AUSTRIA INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	129 12 141	129 129	126 126	11188 29 11217	132.05 132.05		.08 .08			
BAHAMAS DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	1671 9 1680	1676 1676	1661 1661	88615 275 88890	16.13 16.13		1.41 1.41			
INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	5500 19 5519	5559 5559	5423 5423	622238 2321 624559	278.19 278.19		.61 .61	1.10 1.10	.04 .04	
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	7171 28 7199	7235 7235	7084 7084	710853 2596 713449	294.32 294.32		2.02 2.02	1.10 1.10	.04 .04	
BAHRAIN INTERNATIONAL-----SCHEDULED	1									
BARBADOS INTERNATIONAL-----SCHEDULED	2828	2859	2821	173880	497.79		37.77	1.59	10.99	
BELGIUM INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	3982 35 4017	3995 3995	3942 3942	78129 78129	23937.93 2170.40 26108.33		303.09 303.09	90.95 90.95	7.01 7.01	
BERMUDA DOMESTIC-----SCHEDULED	6			407	12.38		.95			
INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	4085 3 4088	4004 4004	3876 3876	440574 102 440676	449.88 18.00 467.86		250.40 250.40	2.28 2.28	10.45 10.45	
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	4091 3 4094	4004 4004	3876 3876	440981 102 441083	462.24 18.00 480.24		251.35 251.35	2.28 2.28	10.45 10.45	
BOLIVIA DOMESTIC-----SCHEDULED	6	6	6	3						
INTERNATIONAL-----SCHEDULED	312	317	311	14183	67.44		.53	23.99		
TOTAL-----SCHEDULED	318	323	317	14186	67.44		.53	23.99		
BRAZIL INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	2190 12 2202	2213 2213	2181 2181	209183 5381 214544	42984.78 42984.78		207.29 207.29	.16 .16	59.84 59.84	

TABLE 4.7
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND
MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
BRITISH HONDURAS INTERNATIONAL---SCHEDULED	211	211	211	1469						
BRITISH WEST INDIES DOMESTIC-----SCHEDULED	1104	1137	1089	46742	13.47		.48			
INTERNATIONAL---SCHEDULED	2755	2817	2737	119131	1135.47		42.52	3.92	1.81	
TOTAL-----SCHEDULED	3859	3954	3826	165873	1148.94		43.00	3.92	1.81	
CANADA DOMESTIC-----SCHEDULED	48731	47437	46667	3276419	12928.56	2.35	3745.73	328.38	.86	
NONSCHEDULED	266			19978						
ALL SERVICES	48997	47437	46667	3296387	12928.56	2.35	3745.73	328.38	.86	
INTERNATIONAL---SCHEDULED	38				2523.65		36.70	31.40		
TOTAL-----SCHEDULED	48767	47437	46667	3276419	15452.21	2.35	3782.43	359.78	.86	
NONSCHEDULED	266			19978						
ALL SERVICES	47033	47437	46667	3296397	15452.21	2.35	3782.43	359.78	.86	
CHILE INTERNATIONAL---SCHEDULED	634	666	633	58257	5774.06		12.73	.84	25.42	
CHINA INTERNATIONAL---SCHEDULED	408	422	404	34483	3282.59		2.54	.40	1.28	
COLOMBIA INTERNATIONAL---SCHEDULED	1388	1389	1376	106986	12448.18		52.32	8.73		
COOK ISLAND INTERNATIONAL---SCHEDULED	24	25	22	950	4.53		1.88			
COSTA RICA DOMESTIC-----SCHEDULED	13	13	13		19.24					
INTERNATIONAL---SCHEDULED	982	972	960	69026	6608.85					
TOTAL-----SCHEDULED	975	985	973	69028	6628.09					
CUBA INTERNATIONAL---SCHEDULED	2	2	2		22.00					
NONSCHEDULED	1				2.00					
ALL SERVICES	3	2	2		24.00					
CZECHOSLOVAKIA INTERNATIONAL---SCHEDULED	203	208	200	2239	1.85					
DENMARK INTERNATIONAL---SCHEDULED	1397	1410	1390	122426	1522.04		52.42	1.37	11.06	

TABLE 4.7
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Express		U.S. Mail		Foreign mail		
						Priority	Nonpriority			
1	2	3	4	5	6	7	8	9	10	
DOMINICAN REPUBLIC..... DOMESTIC-----SCHEDULED	10	7	8	478	32.20					
INTERNATIONAL---SCHEDULED	4525	4635	4526	636663	17914.87		2.73	3.84	4.44	
NONSCHEDULED	25			661	500.40					
ALL SERVICES	4550	4635	4526	637324	18415.27		2.73	3.84	4.44	
TOTAL-----SCHEDULED	4535	4642	4534	637141	17947.07		2.73	3.84	4.44	
NONSCHEDULED	25			661	500.40					
ALL SERVICES	4560	4642	4534	637802	18447.47		2.73	3.84	4.44	
EQUADOR..... INTERNATIONAL-----SCHEDULED	1229	1264	1223	75785	3067.68		46.44	11.05		
ARAB REPUBLIC OF EGYPT..... INTERNATIONAL---SCHEDULED	302	307	301	19686	303.47		73.16		.03	
EL SALVADOR..... INTERNATIONAL---SCHEDULED	647	645	641	30791	130.25		71.83	1.27	6.13	
FIJI..... INTERNATIONAL---SCHEDULED	240	158	155	15557	8781.57		210.27	1.85	4.92	
FINLAND..... INTERNATIONAL---SCHEDULED	309	314	307	15363	61.55		45.10	9.05	1.88	
FRANCE..... INTERNATIONAL-----SCHEDULED	6774	6836	6703	708046	17168.51		443.25	121.79	560.04	
FRENCH ANTILLES..... INTERNATIONAL---SCHEDULED	424	422	417	20583	65.70		2.39	.59		
FRENCH POLYNESIA..... DOMESTIC-----SCHEDULED		339	332	22306					.03	
INTERNATIONAL---SCHEDULED	285	287	279	23316	38.88		31.35		.03	
TOTAL-----SCHEDULED	285	626	611	45622	38.88		31.35			
GERMANY..... INTERNATIONAL---SCHEDULED	39644	39788	38966	3891005	53281.28		8785.92	5789.36	11014.42	
NONSCHEDULED	701			94553	1783.52					
ALL SERVICES	40345	39788	38966	3985558	55044.80		8785.92	5789.36	11014.42	
GREECE..... INTERNATIONAL---SCHEDULED	471	444	438	61477	1243.71		96.33	72.69	30.66	
NONSCHEDULED	1			122						
ALL SERVICES	472	444	438	61599	1243.71		96.33	72.69	30.66	
GUATEMALA..... INTERNATIONAL-----SCHEDULED	1668	1699	1667	112086	3817.00		27.15	21.23	4.19	

TABLE 4.7
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MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
PAPUA NEW GUINEA INTERNATIONAL-----SCHEDULED	6	6	6	153	2.55					
HAITI DOMESTIC-----SCHEDULED	1	1	1	59						
INTERNATIONAL-----SCHEDULED	1874	1926	1846	176882	4993.87		54.52	.10		
NONSCHEDULED	6			125	190.00					
ALL SERVICES	1880	1926	1846	176807	5183.87		54.52	.10		
TOTAL-----SCHEDULED	1875	1927	1847	176741	4993.87		54.52	.10		
NONSCHEDULED	6			125	190.00		54.52	.10		
ALL SERVICES	1881	1927	1847	176866	5183.87					
HONDURAS INTERNATIONAL-----SCHEDULED	386	386	386	14436	.02		101.92	.38		
NONSCHEDULED	1				38.00					
ALL SERVICES	387	386	386	14436	38.02		101.92	.38		
HONG KONG INTERNATIONAL-----SCHEDULED	3189	3283	3180	460036	91697.87		866.89	445.02	289.72	
NONSCHEDULED	15				1489.76					
ALL SERVICES	3204	3283	3180	460036	93187.63		866.89	445.02	289.72	
HUNGARY INTERNATIONAL-----SCHEDULED	340	353	338	6915	22.61					
ICELAND INTERNATIONAL-----SCHEDULED	1				102.23					
INDIA INTERNATIONAL-----SCHEDULED	555	558	550	128419	6460.80		1.56	.37	1.12	
IRELAND INTERNATIONAL-----SCHEDULED	874	903	837	87233	3649.53		76.32	66.64	.08	
NONSCHEDULED	2			230						
ALL SERVICES	876	903	837	87463	3649.53		76.32	66.64	.08	
ISRAEL INTERNATIONAL-----SCHEDULED	856	858	854	179474	1772.56		117.38	13.35	10.37	
ITALY INTERNATIONAL-----SCHEDULED	1913	1944	1882	344735	11459.54		722.24	355.94	21.39	
JAMAICA DOMESTIC-----SCHEDULED	209	215	208	8467	10.82					
INTERNATIONAL-----SCHEDULED	3251	3267	3209	290054	3813.83		11.21	1.95		
TOTAL-----SCHEDULED	3460	3482	3417	298521	3824.65		11.21	1.95		

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MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

12 MONTHS ENDED DECEMBER 31, 1967

State or Country Type of Operation Type of Service	Aircraft departures			Enplaned passengers	Freight	Express	Enplaned revenue tons		
	Total performed	Scheduled	Scheduled completed				U.S. Mail		Foreign mail
							Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10
JAPAN INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	18257 22 18279	18352 18352	15943 15943	2352044 400 2352444	308895.35 308895.35		13147.85 13147.85	7155.11 7155.11	1155.08 1155.08
KENYA INTERNATIONAL-----SCHEDULED	79	81	79	9318	471.29		14.23		.70
KUWAIT INTERNATIONAL-----SCHEDULED	1								
LIBERIA INTERNATIONAL-----SCHEDULED	15	18	15	757	17.53		1.88		.28
ENGLAND INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	448 1 447	447 447	447 447	130 130 260	8985.00 8985.00				
MALAYSIA INTERNATIONAL-----SCHEDULED	97	105	95		7145.59		11.43	1.20	
MEXICO DOMESTIC-----SCHEDULED	1128	1135	1127	91301	1.60				
INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	14631 29 14660	14817 14817	14480 14480	1269824 3786 1273410	7606.55 7606.55	1.72 1.72	37.80 400.00 437.80	1.61 1.61	1.97 1.97
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	15759 29 15788	15952 15952	15607 15607	1360925 3786 1384711	7608.15 7608.15	1.72 1.72	37.80 400.00 437.80	1.61 1.61	1.97 1.97
NETHERLANDS INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	876 2 878	863 863	838 838	73075 263 73338	752.69 752.69		141.35 141.35	19.84 19.84	.16 .16
NETHERLANDS ANTILLES DOMESTIC-----SCHEDULED	14	14	14	595					
INTERNATIONAL-----SCHEDULED NONSCHEDULED ALL SERVICES	5045 3 5048	5110 5110	4970 4970	381505 403 381908	6828.68 6828.68		27.94 27.94	3.25 3.25	.25 .25
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	5059 3 5062	5124 5124	4984 4984	382100 403 382503	6828.68 6828.68		27.94 27.94	3.25 3.25	.25 .25
NEW CALEDONIA INTERNATIONAL-----SCHEDULED	1				52.65		1.56		

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12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures				Enplaned passengers	Enplaned revenue tons				Foreign mail
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail			
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
NEW ZEALAND INTERNATIONAL --- SCHEDULED	1354	1356	1345	237085	9561.16	2.74	42.21		88.43	
NIGERIA INTERNATIONAL --- SCHEDULED	16	18	16	1298	2.36					
NORWAY INTERNATIONAL --- SCHEDULED	900	941	897	56484	1758.50		16.51	3.86	13.62	
NORWAY NONSCHEDULED ALL SERVICES	905	941	897	56484	1898.56		16.51	3.86	13.62	
OMAN INTERNATIONAL --- SCHEDULED	13	13	13		840.26		.08			
PAKISTAN INTERNATIONAL --- SCHEDULED	141	144	140	13499	18.22			.32	.08	
PANAMA INTERNATIONAL --- SCHEDULED	1859	1803	1774	131396	6335.59		459.45	90.91	4.78	
PALAU NEW GUINEA DOMESTIC --- SCHEDULED			635	48065						
PARAGUAY INTERNATIONAL --- SCHEDULED	163	164	163	5447	90.35		11.86	11.71		
PERU INTERNATIONAL --- SCHEDULED	522	510	499	35146	695.60		11.16	13.82		
PHILIPPINES INTERNATIONAL --- SCHEDULED	1449	1451	1440	250226	13781.15		1435.57	892.73	91.35	
POLAND INTERNATIONAL --- SCHEDULED	273	257	250	27766	26.29		.05			
PORTUGAL INTERNATIONAL --- SCHEDULED	494	499	46	41651	1423.77		17.47	8.55	9.55	
ROMANIA INTERNATIONAL --- SCHEDULED	98	103	98	4550	73.52			.01	.02	
SAUDI ARABIA INTERNATIONAL --- SCHEDULED	209	208	208	7416	3.35		7.17			
SENEGAL INTERNATIONAL --- SCHEDULED	17	19	17	582	3.77				.52	
SINGAPORE INTERNATIONAL --- SCHEDULED	620	625	616	57006	18159.33		93.36	3.78	11.54	
SOUTH KOREA INTERNATIONAL --- SCHEDULED	2403	2441	2388	307260	51792.18		2762.07	1719.48	13.15	

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SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND
MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures			Enplaned passengers	Freight	Express	Enplaned revenue tons		
	Total performed	Scheduled	Scheduled completed				U.S. Mail		Foreign mail
							Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10
SPAIN INTERNATIONAL-----SCHEDULED	836	847	833	152314	3525.37		335.98	295.28	
SWEDEN INTERNATIONAL-----SCHEDULED	918	931	914	62954	514.22		19.80	.56	
NONSCHEDULED	3			157					
ALL SERVICES	921	931	914	63111	514.22		19.80	.56	
SWITZERLAND DOMESTIC-----SCHEDULED	9	9	9	255					
INTERNATIONAL-----SCHEDULED	4426	4449	4397	250754	10850.24		708.09	25.59	108.83
NONSCHEDULED	68			8152					
ALL SERVICES	4494	4449	4397	258906	10850.24		708.09	25.59	108.83
TOTAL-----SCHEDULED	4435	4458	4408	251009	10850.24		708.09	25.59	108.83
NONSCHEDULED	68			8152					
ALL SERVICES	4503	4458	4408	259161	10850.24		708.09	25.59	108.83
SEYCHELL IS. DOMESTIC-----SCHEDULED	2	2	2		1.10				
TAIWAN INTERNATIONAL-----SCHEDULED	2597	2400	2385	210404	107078.05		1294.57	422.04	887.53
NONSCHEDULED	1								
ALL SERVICES	2598	2400	2385	210404	107078.05		1294.57	422.04	887.53
THAILAND INTERNATIONAL-----SCHEDULED	403	303	299	80915	9900.46		52.28	20.73	42.55
TONGA INTERNATIONAL-----SCHEDULED	106	104	103	6438	70.02		5.87		
TRINIDAD & TOBAGO INTERNATIONAL-----SCHEDULED	1409	1410	1394	101715	313.49		2.13	.07	
TURKEY INTERNATIONAL-----SCHEDULED	360	364	358	35877	135.24		124.68	13.77	.16
NONSCHEDULED	106			16873					
ALL SERVICES	466	364	358	52750	135.24		124.68	13.77	.16
UNITED ARAB EMIRATES INTERNATIONAL-----SCHEDULED	235	102	46		10488.12		9.85		
UNITED KINGDOM DOMESTIC-----SCHEDULED	21	21	20	1370	43.49		.01		
INTERNATIONAL-----SCHEDULED	13023	13155	12860	2110595	87154.96		8569.47	1184.84	1099.21
NONSCHEDULED	5			910					
ALL SERVICES	13028	13155	12860	2111505	87154.96		8569.47	1184.84	1099.21

TABLE 4.7
SUMMARY OF AIRCRAFT DEPARTURES, ENPLANED PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL BY TYPE OF OPERATION, BY TYPE OF SERVICE, AND BY STATE AND COUNTRY
12 MONTHS ENDED DECEMBER 31, 1987

State or Country Type of Operation Type of Service	Aircraft departures			Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed		Freight	Express	U.S. Mail		Foreign mail
							Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10
UNITED KINGDOM TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	13044 5 13049	13176 13176	12880 12880	2111985 910 2112875	87198.45 87198.45	 	6569.48 6569.48	1164.84 1164.84	1099.21 1099.21
URUGUAY INTERNATIONAL---SCHEDULED	104	104	102	14331	507.24				17.75
U.S.S.R. INTERNATIONAL---SCHEDULED	295	313	294	10766	7.51				.36
VENEZUELA INTERNATIONAL---SCHEDULED	1597	1599	1586	165306	9427.03		23.63	.67	10.08
WESTERN SAMOA INTERNATIONAL---SCHEDULED	160	146	137	15066	335.90		98.08		
YUGOSLAVIA INTERNATIONAL---SCHEDULED NONSCHEDULED ALL SERVICES	875 28 903	881 881	855 855	29277 1456 30733	183.06 183.06				
ZAIRE INTERNATIONAL---SCHEDULED		186	186	32875	36.75				1.79
TOTAL FOR FOREIGN COUNTRIES DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	50926 275 51201	52362 52392	52160 52160	3597812 20253 3618065	13090.38 13090.38	2.35 2.35	3750.76 3750.76	328.38 328.38	.86 .86
INTERNATIONAL---SCHEDULED NONSCHEDULED ALL SERVICES	175610 1106 176716	176662 176662	172659 172659	18343562 136054 18479616	1039263.89 6332.14 1045596.03	4.46 4.46	40465.60 400.00 40865.60	18960.99 18960.99	15718.11 15718.11
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	226536 1381 227917	229054 229054	224819 224819	21941374 156307 22087681	1052354.27 6332.14 1056686.41	6.81 6.81	44216.36 400.00 44616.36	19288.37 19288.37	15718.97 15718.97
OVER-ALL TOTAL FOR ALL STATES, AREAS, AND COUNTRIES-----SCHEDULED DOMESTIC-----SCHEDULED NONSCHEDULED ALL SERVICES	6352459 18921 6371380	6489013 6489013	6303833 6303833	416795968 1074025 417869993	3650249.47 25293.48 3675542.95	889.24 889.24	1393302.59 695.14 1393997.73	79502.53 79502.53	314.15 314.15
INTERNATIONAL---SCHEDULED NONSCHEDULED ALL SERVICES	266803 2217 269020	268302 268302	262418 262418	30773896 269837 31043733	1360075.20 16654.51 1396729.71	103.01 103.01	104337.45 400.00 104737.45	27224.70 27224.70	15957.61 15957.61
TOTAL-----SCHEDULED NONSCHEDULED ALL SERVICES	6619262 21138 6640400	6757315 6757315	6566251 6566251	447569864 1343862 448913726	5030324.67 41947.99 5072272.66	992.25 992.25	1497640.04 1095.14 1498735.18	106727.23 106727.23	16271.76 16271.76

TABLE 4.8
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND
MAIL IN TOTAL OPERATIONS, ALL SERVICES AT LARGE AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
ATLANTA, GEORGIA (WILLIAM B HARTSFIELD INT'L) 5.31	281680	286544	280922	22849433	136321.19	.12	117990.91	57.22	.01	
BOSTON, MASSACHUSETTS (LOGAN INTERNATIONAL) 2.40	116946	117909	114332	10255305	105956.48	.48	32081.50	779.76	78.02	
CHARLOTTE, NORTH CAROLINA (DOUGLAS MUNI) 1.41	93502	94728	92823	6021104	32706.33	.03	16422.87	3.46		
CHICAGO, ILLINOIS (MIDWAY) 0.60	44801	45925	44600	2541301	433.75	.04	23.87			
(MEIGS FIELD) 0.00	892	1483	892	8057	269.02					
(O'HARE INTERNATIONAL) 8.12	330123	342262	328846	26121921	301605.56	6.81	128895.45	6612.63	12.96	
COMMUNITY TOTAL 6.72	375816	389650	374338	28671279	302308.33	6.85	129919.32	6612.63	12.96	
DALLAS-FORT WORTH, TEXAS (LOVE FIELD) 0.57	38905	39396	38866	2435525	1.00					
(DALLAS-FT. WORTH REGIONAL) 4.66	227732	229454	226852	19904685	106942.25	7.88	70881.29	1026.98	1.57	
COMMUNITY TOTAL 5.23	266637	268850	265518	22340190	106943.25	7.88	70881.29	1026.98	1.57	
DENVER, COLORADO (STAPLETON INTERNATIONAL) 3.65	201209	204888	199090	15593583	68429.81	19.39	51372.99	623.85		
DETROIT/ANN ARBOR, MICHIGAN (DETROIT METROPOLITAN WAYNE CTY) 2.17	131508	135123	131883	9254473	35266.23	4.26	37165.05	36.58	3.01	
(WILLOW RUN) 0.00	5506	4870	4842		19557.50					
COMMUNITY TOTAL 2.17	137014	139993	136725	9254473	54823.73	4.26	37165.05	36.58	3.01	
HONOLULU, OAHU, HAWAII (HONOLULU INTERNATIONAL) 1.82	92172	99643	88328	7773253	145144.66	57.83	17599.81	1170.42	1.83	

TABLE 4.8
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS, ALL SERVICES AT LARGE AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures			Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed		Freight	Express	U.S. Mail		Foreign mail
							Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10
HOUSTON, TEXAS (HOUSTON INTERCONTINENTAL) 1.62 (WILLIAM P HOBBY) 0.92 COMMUNITY TOTAL 2.54	95742 64446 160188	96992 65119 162111	94931 64222 159153	6928902 3929891 10858793	49365.26 1108.32 50473.58	379.29 379.29	22508.57 434.41 22842.98	5.68 .07 5.75	
KANSAS CITY, MISSOURI (INTERNATIONAL) 1.05 (KANSAS CITY MUNI) 0.00 COMMUNITY TOTAL 1.05	65372 329 65701	66304 176 66480	64857 176 65033	4481372 4481372	17389.54 808.00 18195.54	16.66 16.66	21232.02 21232.02	62.83 62.83	
LAS VEGAS, NEVADA (MC CARRAN INTL) 1.60 LOS ANGELES/BURBANK/LNG BCH, CAL (HOLLYWOOD-BURBANK) 0.36 (LONG BEACH) 0.14 (LOS ANGELES INTERNATIONAL) 4.44 (ORANGE COUNTY) 0.50 COMMUNITY TOTAL 5.44	92690 26228 7727 204398 30848 269199	92471 27124 7776 207395 31655 273890	89807 28045 7656 202390 30696 266787	6836053 1524478 805021 18969780 2119964 23219241	7832.64 3044.16 3236.06 307500.73 1584.68 315365.63	3.29 41.39 35 41.74	5209.37 59.42 23.81 65247.84 21.56 65352.63	.32 1643.82 .18 1644.05	
MEMPHIS, TENNESSEE (MEMPHIS INTERNATIONAL) 1.18 MIAMI/FT LAUDERDALE, FLORIDA (FT. LAUDERDALE-HOLLYWOOD INTL) 0.92 (MIAMI INTERNATIONAL) 2.19 COMMUNITY TOTAL 3.11	107295 49682 99755 149437	108715 50309 101129 151438	107017 49249 98215 147464	5023047 3929293 9342215 13271508	513305.28 22683.93 136301.44 158965.37	 .24 .42 .66	21005.71 6212.09 23090.28 28302.37	.35 .80 2141.10 2141.90	.62 19.31 19.31
MINNEAPOLIS/ST. PAUL, MINNESOTA (MINNEAPOLIS-ST PAUL INTL) 1.95	110148	112335	108552	8310150	53697.57	1.86	48624.54	32.17	142.85

TABLE 4.8
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS, ALL SERVICES AT LARGE AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
NEWARK, NEW JERSEY (NEWARK) 2.64	136540	138403	133496	11288941	129359.89	2.46	28714.65	1717.96		
NEW YORK, NEW YORK (JOHN F. KENNEDY INTL) 2.38	74804	74737	72762	10140008	192040.96		57506.07	7365.63	34.00	
(LA GUARDIA) 2.65	126886	129382	125423	11326309	22886.30	5.94	39072.65	2465.20	.01	
COMMUNITY TOTAL 5.03	201690	204119	198185	21466318	214927.26	5.94	96578.72	9830.83	34.01	
ORLANDO, FLORIDA ORLANDO INT'L 1.66	86232	86208	84638	7074737	20462.59	1.10	8240.10	1.80		
PHILADELPHIA, PA/CAMDEN, NJ INTERNATIONAL 1.55	95186	97082	94490	8602887	49810.86	.05	46806.17	682.84	4.88	
PHOENIX, ARIZONA (PHOENIX SKY HARBOR INTL) 2.06	128516	129323	127604	8784880	29939.82	.58	13254.22	1.56		
PITTSBURGH, PA/WHEELING W VA ALLEGHENY COUNTY 0.00	1	1	1		.50					
(GREATER PITTSBURGH) 1.91	119858	121125	119214	8156015	15039.28		25696.35	217.40		
COMMUNITY TOTAL 1.91	119859	121126	119215	8156015	15039.78		25696.35	217.40		
ST. LOUIS, MISSOURI (LAMBERT-ST LOUIS MUNI) 2.28	138256	140784	137222	9727239	42602.38	.19	49167.13	95.97		
SALT LAKE CITY, UTAH (SALT LAKE CITY INTL) 1.11	74315	75356	74437	4728595	27720.60	.01	16514.38	3.05		
SAN DIEGO, CALIFORNIA (SAN DIEGO INTNL-LINDSEY FLD) 1.15	63235	64118	62505	4901362	15267.35	1.96	8116.33	8.82		
SAN FRANCISCO/OAKLAND, CAL. (BUCHANAN FIELD) 0.01	1453	1492	1447	81788	10.94		41.26			
(OAKLAND METROPOLITAN INTL) 0.45	38150	38733	37257	1918014	49913.65	.11	5135.86	16.67		
(SAN FRANCISCO INTL) 3.07	152607	155429	1515.5	13116774	182682.96	15.29	45240.55	3236.24	11.31	

TABLE 4.8
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND
MAIL IN TOTAL OPERATIONS, ALL SERVICES AT LARGE AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
SAN FRANCISCO/OAKLAND, CAL. COMMUNITY TOTAL 3.54	192210	195854	190229	15086576	232607.57	15.40	50417.67	3252.91	11.31	
SEATTLE/TACOMA, WASHINGTON (BOEING FIELD INTL.) 0.00	1592	1583	1580	947	10992.77		.31			
(SEATTLE-TACOMA INTERNATIONAL) 1.60	107331	108593	106163	6825552	95219.91	1.42	34009.16	377.00	178.46	
COMMUNITY TOTAL 1.60	108923	110178	107743	6828499	106212.68	1.42	34009.47	377.00	178.46	
TAMPA/ST. PETERSBURG/CLWTRAKLND, FLA (TAMPA INTERNATIONAL) 1.10	68801	67558	68297	4881615	19310.71	.39	12279.06	.01		
(ST. PETERSBURG/CLWTR INTL) 0.03	2206	2243	2190	117354	3.71		.26	.18		
COMMUNITY TOTAL 1.12	69007	69801	68487	4798969	19314.42	.39	12279.32	.19		
WASHINGTON, DIST. OF COL. (DULLES INTERNATIONAL) 1.15	92838	95586	91632	4916890	44955.19	3.38	20750.88	1672.21	2.19	
(WASHINGTON NATIONAL) 1.67	93828	95154	92047	7113121	8466.65	9.27	31166.70	317.49		
COMMUNITY TOTAL 2.82	188466	190740	183679	12030011	53421.84	12.65	51917.56	1989.70	2.19	
OVER-ALL TOTAL, LARGE HUBS 74.05	4120159	4192435	4078817	318041613	3027156.43	582.49	1126775.23	32378.30	507.90	

TABLE 4.9
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND
MAIL IN TOTAL OPERATIONS, ALL SERVICES AT MEDIUM AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures			Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed		Freight	Express	U.S. Mail		Foreign mail
							Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10
ALBUQUERQUE, NEW MEXICO (ALBUQUERQUE SUNPRT/KIRTLND AFB) 0.49	33798	34120	33630	2100888	3408.06		4579.55	2.35	
AUSTIN, TEXAS (ROBERT MUELLER MUNI) 0.45	32439	32754	32326	1928535	6246.59	.18	3893.07	8.06	
BALTIMORE, MARYLAND (BALTO/WASH INTL) 0.94	84082	84921	83497	4009780	15143.18	.10	18524.06	751.60	
BUFFALO/NIAGARA FALLS, NEW YORK (GREATER BUFFALO INTERNATIONAL) 0.41	30062	30205	28893	1728890	5343.70	.02	4842.17		.07
CINCINNATI, OHIO (GREATER CINCINNATI) 0.76	81406	82027	81124	3264622	11385.72		14215.00	15.13	
CLEVELAND, OHIO (HOPKINS INTERNATIONAL) 0.73	58382	59031	57528	3102547	21073.56	.33	9450.84	4.88	
COLUMBUS, OHIO (PORT COLUMBUS INTERNATIONAL) 0.40	29909	30815	28701	1895005	1385.37		7977.63	.42	
(LOCKBOURN AFB) 0.00	3708	4081	3812		88968.72		3988.07	268.99	
COMMUNITY TOTAL 0.40	33817	34898	33313	1895005	90334.09		11985.70	289.41	
DAYTON, OHIO (JAMES M COX DAYTON MUNI) 0.51	38372	39003	38240	2186547	14405.48		8777.56		
EL PASO, TEXAS (EL PASO INTERNATIONAL) 0.31	24520	24732	24444	1328278	3793.07	2.51	1348.83		
FT. MYERS, FLA. (SOUTHWEST) 0.29	18174	18285	18012	1241995	965.20		1677.09		
HARTFD, CON/SPGFLD&WESTFLD, MASS (BRADLEY INTL) 0.53	31344	31805	31065	2267686	9890.56	.37	14882.71	623.00	
INDIANAPOLIS, INDIANA (INDIANAPOLIS MUNI/WEIR-COOK/) 0.53	41048	40210	39808	2273057	11838.33	.20	10025.34	2.35	

TABLE 4.9
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS, ALL SERVICES AT MEDIUM AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
JACKSONVILLE, FLORIDA (JACKSONVILLE INTERNATIONAL) 0.33	26321	26899	26151	1407222	4884.02		8533.31			
KAHULUI, MAUI, HAWAII (KAHULUI) 0.48	36834	39706	34584	2031710	5103.55		1289.08	305.72		
LINIE, KAUAI, HAWAII (LINIE) 0.28	21851	24288	20890	1210842	2429.71		553.77	71.42		
MILWAUKEE, WISCONSIN (GENERAL MITCHELL FIELD) 0.38	27892	28403	27602	1619426	8088.18	.13	6439.76	796.87		
NASHVILLE, TENNESSEE (METROPOLITAN) 0.70	56471	57084	56285	2987233	4896.33		8242.90	.96		
NEW ORLEANS, LOUISIANA (INTERNATIONAL/MOISANT FIELD) 0.78	47180	47734	46870	3311172	14934.15	.35	8265.95		.52	
NORFOLK/VIA BOH/PTSMH/CHESPEKE, VA (NORFOLK REGIONAL) 0.36	30013	30503	29842	1550095	3454.72	.03	2436.78			
OKLAHOMA CITY, OKLAHOMA (WILL ROGERS WORLD) 0.35	28138	28635	27758	1506126	7340.20	1.18	4221.34			
(TINKER AFB) 0.00	14	1	1		33.20					
COMMUNITY TOTAL 0.35	28152	28636	27759	1506126	7373.40	1.18	4221.34			
OMAHA, NEBRASKA (EPPLEY AIRFIELD) 0.25	20553	20808	20254	1072984	3329.69		9988.92	7.35		
ONTARIO/SAN BERNARD/RIVERSE, CA (ONTARIO INTERNATIONAL) 0.52	36730	37406	35969	2232486	8111.17		8787.20	.88		
PORTLAND, OREGON (PORTLAND INTERNATIONAL) 0.66	70004	71099	69271	2834327	37893.32	27.55	9618.40	22.04	.03	
RALEIGH/DURHAM, NORTH CAROLINA (RALEIGH-DURHAM) 0.54	46974	47809	46668	2316211	11791.18		5059.85	.47		

TABLE 4.9
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND
MAIL IN TOTAL OPERATIONS, ALL SERVICES AT MEDIUM AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
RENO, NEVADA (RENO INTL) 0.37	28184	28380	28698	1584189	3705.84		1804.86		.39	
ROCHESTER, NEW YORK (ROCHESTER-MONROE COUNTY) 0.29	27069	27634	28920	1254005	8870.89		3297.52		.32	
SACRAMENTO, CALIFORNIA (SACRAMENTO METROPOLITAN) 0.41	28184	28877	28020	1749987	4124.87	.04	8986.08		.13	
SAN ANTONIO, TEXAS (SAN ANTONIO INTERNATIONAL) 0.57	36288	36634	36160	2425259	7942.31	.05	7145.61			
SAN JOSE, CALIFORNIA (SAN JOSE MUNI) 0.66	47203	48377	46826	2807161	10630.65	248.76	3006.79		.23	
SAN JUAN, PUERTO RICO (PUERTO RICO INTERNATIONAL) 0.70	22512	22944	22297	2994513	55686.96		4304.63		600.75	
(ROOSEVELT ROADS) 0.00	1	1	1	33						
COMMUNITY TOTAL 0.70	22513	22945	22298	2994546	55686.96		4304.63		600.75	
SYRACUSE, NEW YORK (CLARENCE E HANCOCK) 0.35	38708	39530	38497	1499559	11104.11		3817.10		.28	
TUCSON, ARIZONA (TUCSON INTL) 0.36	23086	23357	22744	1525859	3099.07	.34	2404.89		.02	
TULSA, OKLAHOMA (TULSA INTL) 0.33	27647	28071	27419	1368380	6939.15	.29	4831.45		.55	
WEST PALM BEACH/PALM BEACH, FLA (PALM BEACH INTERNATIONAL) 0.52	27853	28192	27852	2228254	1858.28	.01	2468.28		.06	
OVER-ALL TOTAL. MEDIUM HUBS 18.55	1222714	1243941	1208860	70846403	420178.87	282.42	213165.20		3485.71	
									.18	

TABLE 4.10
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND
MAIL IN TOTAL OPERATIONS, ALL SERVICES AT SMALL AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
AKRON/CANTON, OHIO (AKRON-CANTON) 0.07	6885	7091	6864	316886	139.22		880.19		.04	
ALBANY, NEW YORK (ALBANY COUNTY) 0.18	12991	13272	12930	767608	1684.58		2744.11			
ALLENTOWN/BETHLEHEM/EASTON, PA (ALLENTOWN-BETHLEHEM-EASTON) 0.06	6493	6566	6435	263930	1590.68		194.70	16.36		
AMARILLO/BORGER, TEXAS (AMARILLO AIR TERMINAL) 0.11	8919	9086	8884	454972	206.31	.03	705.78			
ANCHORAGE, ALASKA (ANCHORAGE INTERNATIONAL) 0.24	29183	28815	27620	1005785	333942.70		17209.66	43783.91	38.25	
(ELMENDORF AFB) 0.00	140			1022	946.16		9.02	8.79	1.75	
COMMUNITY TOTAL	29323	28815	27620	1006807	334888.86		17218.68	43792.70	40.00	
BATON ROUGE, LOUISIANA (RYAN) 0.09	9405	9475	9362	400314	622.71	.04	387.22			
BILLINGS, MONTANA (LOGAN FIELD) 0.06	7638	7735	7555	257909	362.54		1647.39			
BIRMINGHAM, ALABAMA (BIRMINGHAM MUNI) 0.21	19810	20021	19961	912204	6893.31		2805.28		.10	
BOISE, IDAHO (BOISE AIR TERMINAL/GOWEN FLD) 0.13	16982	17356	16821	540965	5895.71		5814.68			
BROWNSVILLE/HRLGN/SAN BNTD, TEX (HARLINGEN INDUSTRIAL AIRPARK) 0.11	7211	7286	7196	477990	2111.05	.04	2.25			
(RIO GRANDE VALLEY INTL.) 0.00	355	359	354	9471	382.00					
COMMUNITY TOTAL	7566	7645	7550	487461	2493.05	.04	2.25			
BURLINGTON, VERMONT (BURLINGTON INTERNATIONAL) 0.08	6785	6889	6715	361881	1398.45		895.75			

TABLE 4.10
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS, ALL SERVICES AT SMALL AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
CEDAR RAPIDS/IOWA CITY, IOWA (CEDAR RAPIDS MUNI) 0.09	12014	12245	11897	384563	8013.05	.03	104.84			
CHARLESTON, SOUTH CAROLINA (CHARLESTON AFB/MUNI) 0.16	14990	15222	14842	680319	1699.19		1320.22		.01	
CHARLESTON/DUNBAR, W. VIRGINIA (KANAWHA) 0.05	6283	6510	6251	221468	462.62		224.47			
CHARLOTTE AMALIE, VIRGIN IS. US (HARRY S. TRUMAN) 0.08	3931	4048	3913	323440	160.56		215.96	119.06		
CHATTANOOGA, TENNESSEE (LOVELL FIELD) 0.06	5313	5357	5269	276100	699.57		926.37		.02	
COLORADO SPRINGS, COLORADO (PETERSON FIELD) 0.16	12381	12559	12126	682285	360.85	.31	121.15			
COLUMBIA, SOUTH CAROLINA (COLUMBIA METROPOLITAN) 0.13	11503	11696	11414	570566	425.69		2142.07			
CORPUS CHRISTI, TEXAS (CORPUS CHRISTI INTERNATIONAL) 0.10	5549	5583	5504	425405	232.73		501.30			
DAYTONA BEACH, FLORIDA (DAYTONA BEACH REGIONAL) 0.09	6170	6200	6120	374058	502.46		213.82			
DES MOINES, IOWA (DES MOINES MUNI) 0.17	16392	16663	16236	739070	963.82	.01	7344.83			
EUGENE, OREGON (MAHLON SWEET FIELD) 0.06	9799	10042	9787	272112	1655.33		671.72			
FARGO N.D./MOORHEAD, MINNESOTA (HECTOR FIELD) 0.05	3341	3356	3283	217064	179.66		1171.37			
FORT WAYNE, INDIANA (MUNICIPAL/BAER FIELD) 0.06	8412	8321	7988	254423	1129.63		903.18			

TABLE 4.10
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND
MAIL IN TOTAL OPERATIONS, ALL SERVICES AT SMALL AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures			Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed		Freight	Express	U.S. Mail		Foreign mail
							Priority	Nonpriority	
1	2	3	4	5	6	7	8	9	10
FRESNO, CALIFORNIA (FRESNO AIR TERMINAL) 0.08	8583	8733	8548	337892	920.92		1190.78		.04
GRAND RAPIDS, MICHIGAN (KENT COUNTY) 0.14	11729	11937	11842	808978	3358.21		1514.38		1.43
GREENSBORO/HIGH PT./WINSTN,N.C. (GREENSBORO-HIGH PT-WINSTN REG.) 0.24	24887	25385	24863	1028113	11418.13	.01	3332.11		
GREENVILLE/SPARTANBURG, S.C. (GREENVILLE-SPARTANBURG) 0.12	9181	9323	8964	498312	648.93		2157.63		
AGANA, GUAM (AGANA FIELD) 0.09	3218	3108	3072	385108	8843.23	88.84	1804.14	20.58	3.38
HARRISBURG/YORK, PA. (HARRISBURG INTERNATIONAL) 0.09	10429	10600	10338	396228	6017.74		43.78		
HILO, HAWAII, HAWAII (GENERAL LYMAN FIELD) 0.13	10838	10740	10250	537481	11943.51		1072.25	49.29	
HUNTSVILLE/DECATUR, ALABAMA (MADISON COUNTY JETPORT) 0.08	7340	7472	7292	359374	413.21		154.22		
INDIO/PALM SPRINGS, CALIFORNIA (PALM SPRINGS MUNI) 0.07	5968	6055	5923	309988	174.28		44.98		
ISLIP, LONG ISLAND, NEW YORK (LONG ISLAND-MACARTHUR) 0.12	8115	8398	8075	494836	241.84		2020.92		
JACKSON-VICKSBURG, MISS. (ALLEN C THOMPSON FIELD) 0.10	9841	9708	9623	427037	438.74		1742.41		
KAILUA-KONA, HAWAII, HAWAII (KE-ANOLE) 0.19	15405	15623	14500	814908	8022.16		857.17	60.05	
KNOXVILLE, TENNESSEE (MC GEE TYSON) 0.12	11545	11373	11198	520482	5442.30		1588.26		.91

TABLE 4.10
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL IN TOTAL OPERATIONS, ALL SERVICES AT SMALL AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
LEXINGTON/FRANKFORT, KENTUCKY (BLUE GRASS) 0.08	10534	10698	10493	336610	486.22		1504.45			
LINCOLN, NEBRASKA (LINCOLN MUNI) 0.05	6808	6803	6658	228747	158.47	.01	8.52		.15	
LITTLE ROCK, ARKANSAS (ADAMS FIELD) 0.21	15115	15258	15078	879740	779.58		3556.24			
LOUISVILLE, KENTUCKY (STANDIFORD FIELD) 0.24	26810	27194	26670	1034162	8747.83		4814.62		.01	
LUBBOCK, TEXAS (LUBBOCK REGIONAL) 0.12	10427	10532	10409	526230	6711.73		569.78		.04	
MADISON, WISCONSIN (TRUAX FIELD) 0.09	9487	9717	9405	378019	1819.88		1000.06		129.02	
MELBOURNE, FLORIDA (CAPE KENNEDY REGIONAL) 0.06	4450	4463	4387	243711	145.73		15.96		30.89	
MIDLAND/ODESSA, TEXAS (MIDLAND REGIONAL) 0.13	10439	10541	10416	570164	553.87		33.79			
MOBILE, AL/PASCAGOULA, MISS (BATES FIELD) 0.09	9059	9222	9002	377533	3408.72		379.51		.03	
MOLINE, ILLINOIS/DAVENPORT, IOWA (QUAD-CITY) 0.07	12482	12887	12400	283343	312.17		41.72			
MYRTLE BEACH, SOUTH CAROLINA (MYRTLE BEACH) 0.05	4246	4334	4241	217842	143.80		4.72			
PENSACOLA, FLORIDA (PENSACOLA REGIONAL) 0.08	7849	7744	7608	381973	1238.14		1658.94			
PORTLAND, MAINE (PORTLAND INTERNATIONAL JETPORT) 0.13	8147	8314	8123	574313	2463.35	23.33	1350.87			

TABLE 4.10
AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND
MAIL IN TOTAL OPERATIONS, ALL SERVICES AT SMALL AIR TRAFFIC HUBS
12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures				Enplaned passengers	Enplaned revenue tons				
	Total performed	Scheduled	Scheduled completed	Freight		Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
PROVIDENCE, RHODE ISLAND (THEODORE FRANCIS GREEN STATE) 0.20	13151	13383	13085	864078	2785.77		2112.70		.15	
RICHMOND, VIRGINIA (RICHARD E BYRD FLYING FIELD) 0.20	21889	22067	21515	873589	3717.17		3611.54			
ROANOKE, VIRGINIA (ROANOKE MUNI) 0.05	5719	5856	5672	214988	171.56		821.25			
SANTA BARBARA CALIFORNIA (SANTA BARBARA) 0.05	4736	4798	4728	219428	782.85		.45		.31	
(SANTA MARIA PUBLIC) 0.00	264	264	264		156.60					
COMMUNITY TOTAL 0.05	5000	5062	4992	219428	939.45		.45		.31	
SARASOTA/BRADENTON, FLORIDA (SARASOTA-BRADENTON) 0.18	12674	12824	12587	761025	513.84	.07	178.82		19.59	
SAVANNAH, GEORGIA (SAVANNAH MUNI) 0.13	11969	12249	11916	553446	852.70		484.64			
SHREVEPORT, LOUISIANA (GREATER SHREVEPORT MUNI) 0.07	8378	8459	8341	315116	5291.78		1338.16			
SIOUX FALLS, SOUTH DAKOTA (JOE FOSS FIELD) 0.06	7436	7536	7347	248686	920.34		1700.25		.09	
SOUTH BEND, INDIANA (ST JOSEPH COUNTY) 0.05	8390	8780	8342	229833	2425.91		25.50			
SPOKANE, WASHINGTON (SPOKANE INTERNATIONAL) 0.19	24789	25303	24582	809878	6077.87		2934.56			
TALLAHASSEE, FLORIDA (TALLAHASSEE MUNI) 0.06	8190	8288	8145	372171	1298.03		577.35			
TOLEDO, OHIO (TOLEDO EXPRESS) 0.06	5947	6078	5923	252832	163.05		424.37			

TABLE 4.10
 AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND
 MAIL IN TOTAL OPERATIONS, ALL SERVICES AT SMALL AIR TRAFFIC HUBS
 12 MONTHS ENDED DECEMBER 31, 1987

Community (Airport Name) Percent of Enplanements	Aircraft departures				Enplaned revenue tons					
	Total performed	Scheduled	Scheduled completed	Enplaned passengers	Freight	Express	U.S. Mail		Foreign mail	
							Priority	Nonpriority		
1	2	3	4	5	6	7	8	9	10	
WICHITA, KANSAS (WICHITA MUNI)	15934	18298	15782	654515	9733.28	5.48	2788.52			
OVER-ALL TOTAL, SMALL HUBS	670632	680104	662212	30300694	488204.20	116.18	98193.48	44239.86	44.39	

TABLE 4.11
TOP 100 AIRPORTS
IN

RANK ORDER BY TOTAL ENPLANED PASSENGERS
LARGE SCHEDULED CERTIFICATED AIR CARRIERS
SCHEDULED AND NONSCHEDULED OPERATIONS
1987

RANK	AIRPORT	TOTAL ENPLANED PASSENGERS	RANK	AIRPORT	TOTAL ENPLANED PASSENGERS
1	Chicago (O'Hare), IL	26,121,921	51	Albuquerque, NM	2,100,688
2	Atlanta, GA	22,649,433	52	Kahului, Maui, HI	2,031,710
3	Dallas/Ft. Worth (Regional), TX	19,904,665	53	Austin, TX	1,928,535
4	Los Angeles, CA	18,969,780	54	Oakland, CA	1,918,014
5	Denver, CO	15,593,583	55	Sacramento, CA	1,749,987
6	San Francisco, CA	13,116,774	56	Buffalo, NY	1,728,690
7	New York (La Guardia), NY	11,326,309	57	Columbus, OH	1,695,005
8	Newark, NJ	11,288,941	58	Milwaukee, WI	1,619,426
9	Boston, MA	10,255,305	59	Reno, NV	1,584,169
10	New York (John F. Kennedy), NY	10,140,009	60	Norfolk, VA	1,550,095
11	St. Louis, MO	9,727,239	61	Tucson, AZ	1,525,859
12	Miami, FL	9,342,215	62	Burbank, CA	1,524,476
13	Detroit, MI	9,254,473	63	Okalehoma City, OK	1,506,126
14	Phoenix, AZ	8,784,880	64	Syracuse, NY	1,499,559
15	Minneapolis/St. Paul, MN	8,310,150	65	Jacksonville, FL	1,407,222
16	Pittsburgh, PA	8,156,015	66	Tulsa, OK	1,388,360
17	Honolulu, Oahu, HI	7,773,253	67	El Paso, TX	1,329,278
18	Washington (National), DC	7,113,121	68	Rochester, NY	1,254,005
19	Orlando, FL	7,074,737	69	Ft. Myers, FL	1,241,995
20	Houston (Intercontinental), TX	6,928,902	70	Lihue, Kauai, HI	1,210,842
21	Las Vegas, NV	6,836,053	71	Omaha, NE	1,072,964
22	Seattle-Tacoma, WA	6,825,552	72	Louisville, KY	1,036,162
23	Philadelphia, PA	6,802,687	73	Greensboro, NC	1,026,113
24	Charlotte, NC	6,021,104	74	Anchorage, AK	1,005,785
25	Memphis, TN	5,023,047	75	Birmingham, AL	912,204
26	Washington (Dulles Int'l), DC	4,916,890	76	Little Rock, AR	879,740
27	San Diego, CA	4,901,362	77	Richmond, VA	873,569
28	Salt Lake City, UT	4,728,595	78	Providence, RI	864,078
29	Tampa, FL	4,681,615	79	Kailua-Kona, Hawaii, HI	814,908
30	Kansas City, MO	4,481,372	80	Spokane, WA	809,878
31	Baltimore, MD	4,009,780	81	Albany, NY	767,609
32	Houston (William P. Hobby), TX	3,929,891	82	Sarasota, FL	761,025
33	Ft. Lauderdale, FL	3,929,293	83	Des Moines, IA	739,070
34	New Orleans, LA	3,311,172	84	Colorado Springs, CO	682,285
35	Cincinnati, OH	3,264,622	85	Charleston, SC	680,319
36	Cleveland, OH	3,102,547	86	Wichita, KS	654,515
37	San Juan, PR	2,994,513	87	Grand Rapids, MI	608,976
38	Nashville, TN	2,987,233	88	Long Beach, CA	605,021
39	Portland, OR	2,834,327	89	Portland, ME	574,313
40	San Jose, CA	2,807,161	90	Columbia, SC	570,566
41	Chicago (Midway), IL	2,541,301	91	Midland, TX	570,164
42	Dallas (Love Field), TX	2,435,525	92	Savannah, GA	553,446
43	San Antonio, TX	2,425,259	93	Boise, ID	540,965
44	Raleigh/Durham, NC	2,316,211	94	Hilo, HI	537,481
45	Indianapolis, IN	2,273,057	95	Lubbock, TX	526,230
46	Hartford, CT	2,267,686	96	Knoxville, TN	520,482
47	Ontario, CA	2,232,486	97	Greenville, SC	498,312
48	West Palm Beach, FL	2,229,254	98	Islip, NY	494,836
49	Dayton, OH	2,166,547	99	Brownsville, TX	477,990
50	Orange County, CA	2,119,964	100	Amarillo, TX	454,972

V. U.S. CIVIL AIR CARRIER FLEET

U.S. air carrier fleet data shown in this chapter were developed from monthly Aircraft/Engine Utilization Reports submitted by air carrier operators. The aircraft population discussed here is not an inventory of the aircraft owned by the air carriers, but represents the aircraft reported in air carrier use during the last quarter of the year.

Prior to 1987, the fleet size was the number of aircraft reported in operation by the carriers in December. Some of the carriers do not report each month. To adjust for this undercount, beginning in 1987, the fleet size is the monthly average of the number of aircraft reported in operation for the last quarter of the year. For example, if the carrier reported for two months, the fleet count is the average for the two months. If the carrier did not report any aircraft in the last quarter, there is no fleet data for that carrier.

TABLE 5.1

TOTAL AIRCRAFT REPORTED IN OPERATION BY AIR CARRIERS BY TYPE OF AIRCRAFT:

1978 - 1987

Year	Total	Fixed Wing					Total Rotary-Wing
		Total Fixed-Wing	Turbine			Piston	
			Total	Turbojet	Turboprop		
1978	2,545	2,542	2,477	2,237	240	65	3
1979	3,609	3,608	3,052	2,486	566	547	1
1980	3,808	3,806	3,218	2,531	687	588	2
1981	3,973	3,969	3,363	2,511	852	603	4
1982	4,072	4,067	3,501	2,674	827	566	5
1983	4,203	4,194	3,643	2,767	876	551	9
1984	4,370	4,358	3,915	2,959	956	443	12
1985	4,678	4,673	4,240	3,164	1,076	433	5
1986	4,909	4,907	4,487	3,283	1,204	420	2
1987	5,253	5,240	4,819	3,575	1,244	421	13

Note: Beginning in 1987, the number of aircraft is the monthly average of the number of aircraft reported in use for the last three months of the year. Prior to 1987, it was the number of aircraft reported in use during December of the year.

Source: Air Carrier Aircraft Utilization and Propulsion Reliability Report; Aviation Standards National Field Office, Federal Aviation Administration.

TABLE 5.2
AIRCRAFT REPORTED IN OPERATION BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1978 - 1987

Aircraft Make and model	1987	1986	1985	1984	1983	1982	1981	1980	1979	1976
TOTAL	<u>5,253</u>	<u>4,909</u>	<u>4,678</u>	<u>4,370</u>	<u>4,204</u>	<u>4,702</u>	<u>3,970</u>	<u>3,808</u>	<u>3,609</u>	<u>2,543</u>
Turbojet--4-engine-- total	<u>382</u>	<u>322</u>	<u>322</u>	<u>349</u>	<u>309</u>	<u>354</u>	<u>365</u>	<u>441</u>	<u>517</u>	<u>509</u>
Boeing B707	31	35	27	22	24	55	66	146	175	201
Boeing B720	---	---	---	---	1	1	2	3	7	14
Boeing B747	156	150	151	156	146	144	147	144	131	115
British Aerospace Aircraft Groupe										
BAE146	57	25	29	14	3	---	---	---	---	---
Concorde	---	---	---	---	---	---	---	---	9	---
Convair CV22	---	---	---	---	2	2	2	1	---	---
Convair CV30	---	---	---	---	---	1	4	5	6	---
Douglas DC8	138	112	115	157	133	151	144	142	188	178
Lockheed L1329	---	---	---	---	---	---	---	---	1	1
Turbojet--3-engine-- total	<u>1,469</u>	<u>1,466</u>	<u>1,488</u>	<u>1,438</u>	<u>1,393</u>	<u>1,387</u>	<u>1,363</u>	<u>1,347</u>	<u>1,256</u>	<u>1,146</u>
Boeing B727	1,168	1,172	1,195	1,161	1,122	1,110	1,096	1,092	1,029	931
Douglas DC10	185	180	179	174	155	166	161	153	140	133
Lockheed L1011	116	114	114	103	116	111	106	102	87	82
Turbojet--2-engine-- total	<u>1,724</u>	<u>1,495</u>	<u>1,354</u>	<u>1,172</u>	<u>1,065</u>	<u>933</u>	<u>783</u>	<u>743</u>	<u>713</u>	<u>582</u>
Airbus A300	52	52	46	38	34	30	25	19	12	6
Airbus A310	13	7	4	---	---	---	---	---	---	---
Boeing B737	633	555	476	391	348	290	236	220	206	173
Boeing B757	95	73	48	19	15	2	---	---	---	---
Boeing B767	83	69	59	53	49	13	---	---	---	---
British Aircraft										
BAC111	39	45	32	33	36	36	27	27	28	30
Canadair CL600	---	---	---	---	---	1	---	---	---	---
Cessna C500/C501	---	---	2	1	1	2	1	5	4	---
Dassault MD10	---	---	---	2	---	---	---	---	---	---
Dassault MD20	---	---	2	9	12	23	27	42	44	---
Douglas DC9	760	643	641	594	557	509	447	394	381	373
Fokker F28	47	50	41	23	6	11	9	5	---	---
Grumman G1159	---	---	---	1	2	3	5	6	---	---
Hamberger Flugzeugbau HFB320	---	---	---	1	1	---	---	---	4	---
Hawker-Siddeley HS125	---	---	---	---	---	2	---	---	---	---
Israel Aircraft 1123	---	---	---	---	---	---	---	---	1	---
Israel Aircraft 1124	---	---	---	---	---	1	---	1	1	---
Learjet LR23	---	---	---	---	---	3	---	2	5	---
Learjet LR24	---	---	---	---	---	1	3	3	3	---

TABLE 5.2 (continued)
AIRCRAFT REPORTED IN OPERATION BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1978 - 1987

Aircraft Make and model	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
Turbojet--2-engine--(cont)										
Learjet LR25	---	---	---	---	---	---	1	7	6	---
Learjet LR35	2	1	3	8	4	3	---	3	4	---
Learjet LR55	---	---	---	---	---	1	---	---	---	---
Rockwell International NA265	---	---	---	---	---	1	---	2	2	---
Sud Aviation SE210	---	---	---	---	1	2	2	5	6	---
Sud Aviation SN601	---	---	---	---	---	---	2	3	---	---
Turboprop--4--engine--										
total	<u>102</u>	<u>96</u>	<u>108</u>	<u>109</u>	<u>99</u>	<u>116</u>	<u>105</u>	<u>92</u>	<u>81</u>	<u>67</u>
Canadair CL44	6	2	6	5	2	4	4	2	1	---
DeHavilland DHC7	41	40	42	46	46	43	29	18	8	---
Lockheed L188	34	33	38	34	37	47	51	52	52	46
Lockheed L382	21	21	22	22	11	19	20	20	20	21
Vickers V745	---	---	---	2	3	3	1	---	---	---
Turboprop--2--engine--										
total	<u>1,139</u>	<u>1,108</u>	<u>965</u>	<u>847</u>	<u>773</u>	<u>707</u>	<u>748</u>	<u>591</u>	<u>484</u>	<u>173</u>
Beech BE65	4	1	---	---	---	---	---	---	---	---
Beech BE90	4	---	3	2	2	4	2	2	3	---
Beech BE99	52	95	103	85	101	108	102	87	85	---
Beech BE100	---	1	1	2	1	---	---	---	---	---
Beech BE200	5	2	1	6	4	2	2	1	4	---
Beech BE1900	48	60	42	17	---	---	---	---	---	---
Beech STC18	---	---	---	1	1	1	---	---	---	---
British Aerospace Aircraft Group										
Jetstream	113	69	46	10	10	12	12	15	16	---
Cessna C441	2	3	1	3	1	2	---	1	---	---
Construcciones Aeronauticas C212	16	19	24	27	26	16	15	21	---	---
Convair CV580/640/600	77	91	100	107	100	98	251	119	120	91
DeHavilland DHC6	71	68	86	107	112	101	96	107	78	13
DeHavilland DHC8	34	26	10	---	---	---	---	---	---	---
Dornier DO228	18	12	6	---	---	---	---	---	---	---
Douglas DC3	---	---	1	---	---	---	---	---	---	---
Embraer EM110	97	91	79	81	83	83	66	34	4	---
Embraer EM120	36	16	---	---	---	---	---	---	---	---
Fairchild FH27	13	20	28	23	19	10	8	6	6	7
Fairchild FH227	8	7	8	9	9	9	6	8	22	23
Fokker F27	26	36	27	14	7	4	2	4	---	---
GAF Nomad N22	---	---	---	---	---	2	3	9	---	---
Grumman G159	14	15	23	21	16	19	17	16	15	1
Hawker-Siddeley HS748	---	---	---	2	5	5	2	2	1	1

TABLE 5.2 (continued)
AIRCRAFT REPORTED IN OPERATION BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1978 - 1987

Aircraft Make and model	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
Turboprop--2--engine--(cont)										
Israel Aircraft										
AR101B	---	---	---	---	---	3	2	---	---	---
Mitsubishi MU2	1	6	3	1	2	---	---	---	---	---
Nihon YS11	36	36	42	30	35	27	27	22	18	19
Nomad N24	---	---	---	---	---	---	---	---	1	---
Nord ND262	12	15	14	14	9	15	15	22	24	9
Piper 31T	6	5	4	8	6	1	1	---	---	---
Rockwell AC690	1	4	4	4	1	---	---	---	---	---
Saab-Fairchild										
SF340A	51	34	17	3	---	---	---	---	---	---
Short SC7	---	1	1	1	1	2	2	2	---	---
Short SD3	110	110	77	78	66	52	39	34	21	1
S.N.I.A.S. ATR42	20	8	---	---	---	---	---	---	---	---
Swearingen SA226	101	122	113	121	99	105	72	100	66	8
Swearingen SA227	163	135	101	70	55	26	4	---	---	---
Turboprop--1-engine										
total	<u>3</u>	---	---	---	---	---	---	---	---	---
Cessna C208	3	---	---	---	---	---	---	---	---	---
Piston--4-engine--										
total	<u>38</u>	<u>32</u>	<u>38</u>	<u>50</u>	<u>52</u>	<u>58</u>	<u>68</u>	<u>73</u>	<u>58</u>	<u>42</u>
DeHavilland DH114	---	---	---	6	11	17	21	27	7	---
Douglas DC4	---	1	3	3	3	3	6	5	4	2
Douglas DC6	37	30	34	41	38	38	41	41	46	39
Douglas DC7	1	1	1	---	---	---	---	---	---	---
Lockheed L1049	---	---	---	---	---	---	---	---	1	1
Piston--3-engine--										
total	<u>3</u>	<u>3</u>	<u>4</u>	<u>4</u>	<u>2</u>	---	---	---	<u>1</u>	---
Britten Norman MK3	3	3	4	4	2	---	---	---	1	---
Piston--2-engine--										
total	<u>380</u>	<u>385</u>	<u>394</u>	<u>389</u>	<u>502</u>	<u>512</u>	<u>536</u>	<u>517</u>	<u>498</u>	<u>21</u>
Aero Commander AC500	---	---	---	---	2	1	1	3	1	---
Aero Commander AC680	---	---	---	---	---	1	1	3	2	---
Beech BE18	5	9	7	15	20	14	20	13	26	---
Beech BE55	2	1	---	---	1	2	2	2	3	---
Beech BE58	7	4	9	9	6	5	3	3	---	---
Beech BE65	2	3	---	---	3	2	4	1	2	---
Beech BE76	---	2	3	3	1	1	---	---	---	---
Beech BE80	---	---	4	8	---	---	---	2	1	---
Beech BE95	---	---	---	---	---	---	1	1	1	---
Beech BE99	---	---	---	---	1	---	---	---	---	---

TABLE 5.2 (continued)
AIRCRAFT REPORTED IN OPERATION BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1978 - 1987

Aircraft Make and model	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
Piston--2--engine--(cont)										
Beech STC-18	---	---	---	---	---	---	---	5	---	---
Britten-Norman BN2A	29	29	7	27	29	33	35	31	10	---
Britten-Norman BN28	---	---	---	---	---	---	---	---	1	---
Cessna C207T	---	---	---	---	1	1	---	---	---	---
Cessna C303T	1	1	1	---	---	---	---	---	---	---
Cessna C310	1	1	1	2	3	4	5	7	11	---
Cessna C320	---	---	---	1	---	---	---	---	---	---
Cessna C337	---	---	---	---	---	---	---	---	2	---
Cessna C340	---	---	---	---	---	---	1	2	2	---
Cessna C401	---	---	---	---	---	2	---	2	---	---
Cessna C402	143	147	155	112	152	130	131	115	93	1
Cessna C404	4	6	5	4	8	22	17	20	17	---
Cessna C411	---	---	---	1	---	---	1	1	1	---
Cessna C414	---	2	1	1	1	---	3	1	2	---
Cessna C421	---	---	---	1	---	1	---	1	---	---
Convair CV240	10	9	12	15	10	11	12	4	3	---
Convair CV340/CV440	23	17	18	14	22	23	28	23	22	---
Curtiss-Wright C46	---	---	3	2	4	5	12	13	12	10
DeHavilland DHC4	---	---	---	---	---	---	---	1	1	2
DeHavilland DHC104	---	---	---	---	---	---	2	---	2	---
Dornier DO28	---	---	---	---	---	---	2	1	1	---
Douglas DC3	38	43	39	30	42	50	56	68	90	2
Fairchild C82	---	---	---	---	2	1	2	2	2	2
Grumman G21	---	---	3	4	3	3	1	6	1	---
Grumman G44	1	1	1	1	1	1	1	---	---	---
Grumman G73	12	11	3	5	9	9	2	4	---	---
Grumman G111	2	3	6	---	4	2	---	---	---	---
Gulfstream American GAC21	---	---	---	---	---	---	---	---	---	1
Martin M404	1	---	---	1	13	11	11	14	20	3
Partenavia PT68	2	---	---	---	---	---	---	---	---	---
Piper PA23	11	9	3	10	16	18	19	26	20	---
Piper PA28	---	---	---	---	7	---	---	---	---	---
Piper PA30	---	---	---	1	2	2	2	2	2	---
Piper PA31	77	73	100	110	121	139	145	126	122	---
Piper PA32	2	---	---	---	---	---	---	---	---	---
Piper PA34	4	9	12	11	17	16	15	12	10	---
Piper PA44	1	1	1	1	1	1	1	1	1	---
Piper PA600	2	2	---	---	---	1	---	1	14	---
Piper PA1020T	---	2	---	---	---	---	---	---	---	---
Helicopters--total	<u>13</u>	<u>2</u>	<u>5</u>	<u>12</u>	<u>9</u>	<u>5</u>	<u>4</u>	<u>2</u>	<u>1</u>	<u>3</u>

Note: Beginning in 1987, the number of aircraft is the monthly average of the number of aircraft reported in use for the last three months of the year. Prior to 1987, it was the number of aircraft reported in use during December of the

Source: Air Carrier Aircraft Utilization and Propulsion Reliability Report; Aviation Standards National Field Office, Federal Aviation Administration.

TABLE 5.3
TOTAL FLIGHT HOURS FOR AIRCRAFT REPORTED IN OPERATION BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1978 - 1987

Aircraft Make and model	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
TOTAL	11,886,280	11,221,587	10,498,546	9,674,406	8,555,580	6,916,349	8,124,998	8,221,961	7,550,657	6,984,395
Turbojet--4-engine--total	997,951	921,409	817,058	861,389	816,624	728,412	957,880	1,223,377	1,505,863	1,558,051
Boeing B707	36,206	37,448	15,904	39,243	64,819	83,515	153,877	359,112	539,189	592,885
Boeing B720	---	---	---	136	438	317	438	1,124	18,310	39,072
Boeing B747	575,426	559,137	537,954	537,142	504,573	439,003	531,035	529,314	482,550	418,177
British Aerospace Aircraft Groupe BAE146	125,918	92,431	52,452	14,140	1,623	---	---	---	---	---
Concorde	---	---	---	---	---	---	---	415	989	---
Convair CV22	---	---	---	---	---	656	543	71	91	307
Convair CV30	---	---	---	---	---	219	657	1,437	2,092	2,202
Douglas DC8	260,401	232,393	210,748	270,728	245,171	204,702	271,330	331,417	462,053	504,668
Lockheed L1329	---	---	---	---	---	---	---	487	589	540
Turbojet--3-engine--total	3,865,525	3,960,406	3,843,357	3,786,832	3,278,501	2,971,583	3,531,243	3,693,218	3,519,847	3,159,647
Boeing B727	2,930,107	3,036,233	2,989,848	2,990,821	2,529,074	2,289,310	2,769,906	2,949,274	2,870,352	2,509,204
Douglas DC10	566,751	580,200	529,073	487,831	423,824	377,811	442,698	441,576	377,434	409,816
Lockheed L1011	368,667	343,973	324,436	308,180	325,603	304,462	318,639	302,368	272,061	240,627
Turbojet--2-engine--total	4,575,179	4,057,267	3,568,486	2,872,265	2,494,072	1,751,513	1,817,081	1,715,937	1,641,589	1,575,665
Airbus A300	156,947	150,898	131,904	101,143	84,674	56,390	61,783	43,703	23,843	11,431
Airbus A310	27,234	17,054	5,613	---	---	---	---	---	---	---
Boeing B737	1,730,473	1,489,831	1,312,425	1,006,238	829,359	562,521	585,997	522,556	470,075	412,829
Boeing B757	270,729	195,957	108,320	50,022	17,090	---	---	---	---	---
Boeing B767	274,429	223,227	192,467	172,705	104,222	1,811	---	---	---	---
British Aircraft BAC111	84,642	68,908	73,873	59,555	79,011	54,306	58,560	65,194	75,807	76,624
Canadair CL600	---	---	---	---	---	---	---	---	---	---
Cessna C500/C501	54	50	546	657	652	423	1,767	3,773	680	---
Dassault MD10	---	---	2,262	698	---	---	---	---	---	---
Dassault MD20	---	---	4,335	3,218	11,097	18,303	31,559	33,823	47,796	59,448
DeHavilland DHC125	---	---	---	---	---	---	---	---	198	583
Douglas DC9	1,931,391	1,809,888	1,655,353	1,438,339	1,348,511	1,028,836	1,051,747	1,023,200	1,001,148	993,765
Fokker F28	97,727	98,918	73,494	33,036	13,224	23,996	17,123	2,642	---	---
Grunman G1159	---	---	334	660	309	1,308	2,392	2,774	3,265	2,839
Hamberger Flugzeug-bau HFB320	---	---	---	102	734	---	---	1,310	2,363	2,933
Hawker-Siddeley HS125	---	---	---	---	---	304	---	---	---	---
Israel Aircraft 1121	---	---	---	---	8	---	---	---	---	---
Israel Aircraft 1123	---	---	---	---	---	---	---	39	318	269

TABLE 5.3 (continued)
TOTAL FLIGHT HOURS FOR AIRCRAFT REPORTED IN OPERATION BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1978 - 1987

Aircraft Make and model	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
Turbojet--2-engine- (cont)										
Israel Aircraft 1124	---	---	---	---	---	208	86	209	155	83
Learjet LR23	---	---	---	---	1,227	785	1,228	1,658	631	---
Learjet LR24	---	---	---	---	537	436	476	1,160	1,173	229
Learjet LR25	---	---	---	---	---	26	1,007	4,041	3,905	8,036
Learjet LR35	1,553	2,536	7,559	5,892	3,148	688	697	1,700	4,031	4,284
Learjet LR36	---	---	---	---	---	---	---	---	63	190
Learjet LR55	---	---	---	---	---	253	---	---	---	---
Rockwell International NA265	---	---	---	---	49	20	46	589	1,179	1,197
Sud Aviation SE210	---	---	---	---	220	899	1,177	5,966	4,959	925
Sud Aviation SN601	---	---	---	---	---	---	1,434	1,600	---	---
Turboprop--4--engine- total										
	<u>181,424</u>	<u>169,884</u>	<u>209,197</u>	<u>216,405</u>	<u>206,435</u>	<u>163,552</u>	<u>186,955</u>	<u>158,687</u>	<u>146,294</u>	<u>140,307</u>
Canadair CL44	9,355	8,687	9,147	7,567	6,066	5,303	4,617	2,155	465	---
DeHavilland DHC7	91,899	73,524	98,315	106,287	103,528	73,069	64,698	31,472	8,905	2,905
Lockheed L188	33,618	38,019	44,765	45,182	47,981	41,594	60,909	69,217	81,280	79,422
Lockheed L382	46,552	49,654	56,597	56,165	47,877	42,250	56,615	55,843	55,644	57,980
Vickers V745	---	---	373	1,204	983	912	116	---	---	---
Vickers V814	---	---	---	---	---	424	---	---	---	---
Turboprop--2--engine- total										
	<u>1,943,532</u>	<u>1,720,179</u>	<u>1,616,425</u>	<u>1,487,032</u>	<u>1,288,616</u>	<u>935,588</u>	<u>1,127,794</u>	<u>946,160</u>	<u>511,966</u>	<u>380,562</u>
Beech BE65	596	639	---	---	---	---	---	---	---	---
Beech BE90	303	158	360	443	626	479	209	537	459	---
Beech BE99	141,691	175,543	199,736	199,205	183,534	137,968	164,467	171,475	45,309	---
Beech BE100	803	259	806	202	13	---	---	255	---	---
Beech BE200	3,625	970	3,541	2,522	1,868	1,813	960	886	2,100	---
Beech BE1900	135,960	107,128	73,211	23,289	---	---	---	---	---	---
Beech STC18	---	982	---	648	632	161	236	---	---	---
British Aerospace Aircraft Group										
Jet Stream	188,315	108,723	60,492	27,712	18,485	16,222	25,836	25,982	9,141	---
Cesena C441	3,874	1,364	1,745	1,672	1,265	501	291	107	---	---
Construcciones Aeronauticas C212	21,643	19,891	24,886	34,252	33,902	21,870	109,613	637	675	256
Convair CV580/600/640	82,371	100,288	113,063	121,399	121,785	104,432	146,867	169,886	169,851	161,440
DeHavilland DHC6	122,783	113,958	162,340	176,233	169,980	139,042	170,458	167,282	59,679	26,768
DeHavilland DHC8	55,680	36,835	7,362	---	---	---	---	---	---	---
Dornier DO228	26,032	16,044	12,306	---	---	---	---	---	---	---
Douglas DC3	---	---	1,478	---	---	---	---	---	---	---
Embraer EM110	177,781	149,585	156,363	199,536	196,128	127,153	94,790	36,468	614	---
Embraer EM120	66,054	18,838	---	---	---	---	---	---	---	---
Fairchild FH27	13,502	31,232	36,440	35,521	24,777	12,438	6,132	3,441	5,177	9,514
Fairchild FH227	11,787	13,244	14,491	17,053	19,525	13,341	13,690	17,134	31,926	38,455

TABLE 5.3 (continued)
TOTAL FLIGHT HOURS FOR AIRCRAFT REPORTED IN OPERATION BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1978 - 1987

Aircraft Make and model	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
Turboprop--2--engine- (cont)										
Fokker F27	59,910	61,144	40,521	25,056	13,151	6,047	3,675	5,196	---	---
GAF Nomad N22	---	---	---	---	69	3,628	10,432	5,546	---	---
Grumman C159	15,177	23,328	23,911	20,773	18,339	8,532	14,643	14,273	12,294	5,842
Hawker-Siddeley HS748	---	---	2,500	7,385	9,320	12,091	4,979	2,564	2,087	2,067
Israel Aircraft AR101B	---	---	---	---	587	2,284	139	---	---	---
Mitsubishi MU2	256	2,980	1,390	314	14	---	---	---	---	---
Nihon YS11	38,093	46,268	53,707	48,246	43,260	25,610	35,737	37,280	43,798	51,925
Nomad N24	---	---	---	---	---	---	---	---	51	---
Nord ND262	23,313	24,860	20,604	20,820	22,446	14,630	21,986	44,857	50,644	51,984
Piper 31T	5,656	4,865	7,003	10,103	2,692	---	70	---	---	---
Rockwell AC690	476	3,057	3,076	2,683	22	---	---	---	---	---
Saab-Fairchild SF340A	98,616	56,392	20,627	386	---	---	---	---	---	---
Short SC7	---	101	315	475	733	520	1,008	489	---	---
Short SD3	217,177	184,680	178,862	150,714	123,385	79,909	77,708	66,606	27,671	13,689
S.N.I.A.S. ATR42	27,943	5,923	---	---	---	---	---	---	---	---
Swearingen SA226	163,994	185,243	217,667	218,716	194,324	169,688	223,059	177,240	50,436	18,642
Swearingen SA227	240,121	225,657	177,622	141,674	87,754	37,209	609	39	54	---
Turboprop--1-engine total	<u>1,240</u>	---	---	---	---	---	---	---	---	---
Beech A36TC	659	---	---	---	---	---	---	---	---	---
Cessna C208	581	---	---	---	---	---	---	---	---	---
Piston--4-engine-										
total	<u>24,367</u>	<u>24,909</u>	<u>30,854</u>	<u>29,215</u>	<u>33,616</u>	<u>35,782</u>	<u>64,951</u>	<u>70,295</u>	<u>45,007</u>	<u>36,956</u>
DeHavilland DH114	---	---	2,626	7,847	16,835	22,598	42,702	39,110	---	---
Douglas DC4	---	1,038	1,512	720	1,187	256	1,304	3,150	5,934	4,759
Douglas DC6	23,405	23,049	26,039	20,648	15,594	12,928	20,945	28,035	31,006	31,958
Douglas DC7	962	822	677	---	---	---	---	---	---	---
Lockheed L1049	---	---	---	---	---	---	---	---	8,067	239
Piston--3-engine-										
total	<u>2,477</u>	<u>1,716</u>	<u>5,470</u>	<u>2,983</u>	<u>1,191</u>	---	---	---	---	---
Britten Norman MK3	2,477	1,716	5,470	2,983	1,191	---	---	---	---	---
Piston--2-engine-										
total	<u>290,738</u>	<u>360,832</u>	<u>402,377</u>	<u>410,287</u>	<u>427,488</u>	<u>324,539</u>	<u>437,955</u>	<u>411,897</u>	<u>177,868</u>	<u>128,623</u>
Aero Commander AC500	---	6	28	300	878	678	789	1,503	104	---
Aero Commander AC680	---	---	---	---	581	759	1,129	892	166	---
Beech BE18	578	345	3,015	9,723	10,721	5,928	8,160	7,521	3,222	31
Beech BE55	---	194	---	284	674	936	981	961	416	---
Beech BE58	2,165	1,727	4,262	2,637	1,430	1,558	1,476	827	99	---
Beech BE65	2,181	5,252	---	---	3,385	1,632	3,435	1,160	286	---
Beech BE76	28	142	525	586	306	78	---	123	---	---

TABLE 5.3 (continued)
TOTAL FLIGHT HOURS FOR AIRCRAFT REPORTED IN OPERATION BY AIR CARRIERS, BY MANUFACTURER AND MODEL
1978 - 1987

Aircraft Make and model	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
Piston--2-engine-(cont)										
Beech BE80	---	---	7,031	7,667	---	---	591	3,002	455	---
Beech BE95	635	9	---	---	---	95	557	105	32	---
Beech BE99	---	---	---	---	3,719	---	---	---	---	---
Beech STC-18	---	---	---	---	---	---	---	2,769	---	---
Britten-Norman BN2A	19,729	26,166	22,774	28,306	31,204	32,003	39,315	21,239	2,380	---
Britten-Norman BN28	---	---	---	---	---	---	---	1,407	100	---
Cessna C207T	---	---	---	---	218	60	---	---	---	---
Cessna C210T	---	---	---	45	244	---	---	---	---	---
Cessna C303T	6	---	237	207	---	---	---	---	---	---
Cessna C310	440	490	372	956	1,059	2,573	4,227	2,857	1,157	---
Cessna C320	---	---	8	20	---	---	---	---	---	---
Cessna C337	---	---	---	---	---	---	---	129	38	---
Cessna C340	---	---	---	6	---	18	138	499	244	---
Cessna C401	---	---	---	---	788	513	1,234	630	165	---
Cessna C402	139,843	184,470	191,070	166,914	152,596	103,415	137,504	120,892	23,816	64
Cessna C404	4,022	4,959	4,562	6,730	9,694	14,184	22,977	22,260	2,877	---
Cessna C411	---	---	102	135	---	6	60	470	51	---
Cessna C414	189	1,279	523	522	2,267	15	645	655	94	---
Cessna C421	---	---	46	26	32	26	14	573	---	---
Convair CV240	2,967	3,106	6,284	7,861	6,609	7,399	8,299	3,633	2,067	367
Convair CV340/CV440	6,384	5,584	4,664	6,910	15,932	10,633	17,163	13,744	16,784	12,011
Curtiss-Wright C46	---	411	1,104	966	1,821	2,340	3,358	4,673	8,708	8,708
DeHavilland DHC4	---	---	---	---	---	---	---	91	529	527
DeHavilland DHC104	---	---	---	---	---	489	2,014	1,268	109	---
Dornier DO28	---	---	---	---	---	---	199	400	16	---
Douglas DC3	21,485	25,971	25,916	23,498	21,836	19,649	25,861	32,749	69,964	94,597
Fairchild C82	---	---	6	708	1,252	1,485	2,198	2,127	1,957	1,856
Grunman G10	---	---	---	---	---	1,104	---	---	---	---
Grunman G21	---	787	1,861	1,927	1,453	920	1,309	3,474	154	114
Grunman G44	---	56	110	151	96	80	76	---	---	11
Grunman G73	11,178	10,411	7,979	7,669	7,692	5,004	7,221	3,662	---	---
Grunman G111	1,712	3,476	3,207	4,298	1,817	---	---	---	---	---
Martin M404	10	---	217	5,094	5,732	5,051	9,014	7,604	12,659	10,337
Pantonvia PT68	1,362	---	---	---	---	---	---	---	---	---
Piper PA23	5,100	4,113	6,308	4,691	6,658	4,871	9,969	9,996	1,073	---
Piper PA28	---	---	---	---	42	33	---	---	---	---
Piper PA30	---	---	17	460	721	228	392	281	22	---
Piper PA31	67,554	72,782	102,855	114,330	128,305	95,310	118,451	120,618	25,751	---
Piper PA32	698	---	---	---	---	---	---	---	---	---
Piper PA34	981	7,352	7,255	6,660	7,298	5,022	8,853	8,569	1,157	---
Piper PA44	524	418	39	---	259	205	238	938	25	---
Piper PA600	409	321	---	---	169	239	108	7,596	1,189	---
Piper PA1020T	558	1,005	---	---	---	---	---	---	---	---
Helicopters--total	<u>3,847</u>	<u>4,985</u>	<u>5,322</u>	<u>7,998</u>	<u>9,037</u>	<u>5,380</u>	<u>1,139</u>	<u>370</u>	<u>2,223</u>	<u>4,564</u>

Source: Air Carrier Aircraft Utilization and Propulsion Reliability Report; Aviation Standards National Field Office, Federal Aviation Administration.

TABLE 5.4

TOTAL LARGE AIRCRAFT REPORTED IN OPERATION by DOMESTIC, FLAG AND SUPPLEMENTAL/SCHEDULED
CARGO AIR CARRIERS AND COMMERCIAL OPERATORS
BY CARRIER, AND BY ENGINE TYPE
1987

Name of Carrier	Total All Aircraft	Turbojet				Turboprop			Piston				Rotary
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	
TOTAL	4,231	3,573	382	1,469	1,722	546	102	444	112	38	---	74	---
Aerial Transit	7	---	---	---	---	---	---	---	7	7	---	---	---
Aero Virgin Islands	3	---	---	---	---	---	---	---	3	---	---	3	---
Aero West Airlines dba Royal West Airlines	2	2	2	---	---	---	---	---	---	---	---	---	---
Aeron Intl. Airlines	2	---	---	---	---	2	2	---	---	---	---	---	---
Air Berlin	1	1	---	---	1	---	---	---	---	---	---	---	---
Air Midwest	4	---	---	---	---	4	---	4	---	---	---	---	---
Air Specialties dba Air America	3	3	---	3	---	---	---	---	---	---	---	---	---
Air Train	2	2	2	---	---	---	---	---	---	---	---	---	---
Air Wisconsin dba United Express	28	12	12	---	---	16	---	16	---	---	---	---	---
Airborne Express	38	26	6	---	20	12	---	12	---	---	---	---	---
Airlift International	4	3	3	---	---	1	---	1	---	---	---	---	---
Airways International	2	---	---	---	---	---	---	---	2	---	---	2	---
Alaska Airlines	46	46	---	23	23	---	---	---	---	---	---	---	---
Aloha Airlines	10	10	---	---	10	---	---	---	---	---	---	---	---
America West Airlines	68	65	---	---	65	3	---	3	---	---	---	---	---
American Airlines	409	409	9	224	176	---	---	---	---	---	---	---	---
American Trans Air	18	18	---	18	---	---	---	---	---	---	---	---	---
Amerijet International	4	4	---	4	---	---	---	---	---	---	---	---	---
Arrow Air	5	5	5	---	---	---	---	---	---	---	---	---	---
Aspen Airways	14	3	3	---	---	11	---	11	---	---	---	---	---
Atlantic Southeast Airlines	36	---	---	---	---	36	5	31	---	---	---	---	---
Audi Air	1	---	---	---	---	---	---	---	1	---	---	1	---
Avair dba American Eagle	6	---	---	---	---	6	---	6	---	---	---	---	---
Aviation Associates dba Sunair	11	---	---	---	---	11	---	11	---	---	---	---	---
Braniff	25	25	---	25	---	---	---	---	---	---	---	---	---
Britt Airways dba Britt Airways & Eastern Express	15	---	---	---	---	15	---	15	---	---	---	---	---
Brockway Air VT dba Piedmont Commuter	1	---	---	---	---	1	---	1	---	---	---	---	---
Buffalo Airways	4	4	4	---	---	---	---	---	---	---	---	---	---
Business Air	5	---	---	---	---	---	---	---	5	---	---	5	---
Cape Smythe Air Service	2	---	---	---	---	2	---	2	---	---	---	---	---
Capitol Air Service	2	---	---	---	---	2	---	2	---	---	---	---	---
CCair dba Piedmont Commuter	7	---	---	---	---	7	---	7	---	---	---	---	---
Chalks International	2	---	---	---	---	---	---	---	2	---	---	2	---
Challenge Air Cargo	2	2	2	---	---	---	---	---	---	---	---	---	---
Command Airway	13	---	---	---	---	13	---	13	---	---	---	---	---
Conner Airlines	3	---	---	---	---	---	---	---	3	3	---	---	---
Connie Kalitta Services	8	8	3	4	1	---	---	---	---	---	---	---	---
Continental or Frontier Airlines	287	287	---	85	202	---	---	---	---	---	---	---	---
Crown Airways dba Allegheny Commuter	8	---	---	---	---	8	---	8	---	---	---	---	---
Delta Airlines	367	367	10	176	181	---	---	---	---	---	---	---	---
DHL Airways	5	5	---	5	---	---	---	---	---	---	---	---	---

TABLE 5.4 (continued)

TOTAL LARGE AIRCRAFT REPORTED IN OPERATION by DOMESTIC, FLAG AND SUPPLEMENTAL/SCHEDULED
CARGO AIR CARRIERS AND COMMERCIAL OPERATORS
BY CARRIER, AND BY ENGINE TYPE
1987

Name of Carrier	Total All Aircraft	Turbojet				Turboprop			Piston				Rotary
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	
Eager Aviation	1	---	---	---	---	1	---	1	---	---	---	---	---
Eastern Airlines	281	281	---	147	134	---	---	---	---	---	---	---	---
Emerald Air	5	5	---	---	5	---	---	---	---	---	---	---	---
ERA Helicopters dba Jet Alaska	11	---	---	---	---	11	---	11	---	---	---	---	---
Executive Air Charter dba American Eagle	3	---	---	---	---	3	---	3	---	---	---	---	---
Fairway	2	---	---	---	---	2	---	2	---	---	---	---	---
Federal Express	78	78	---	78	---	---	---	---	---	---	---	---	---
Flight Line dba Flight Line & Southern Express	1	---	---	---	---	---	---	---	1	---	---	1	---
Flight Trails dba Air Resorts	7	---	---	---	---	---	---	---	7	---	---	7	---
Florida Airmotive	3	---	---	---	---	---	---	---	3	---	---	3	---
Florida Express	18	18	---	---	18	---	---	---	---	---	---	---	---
Florida West Airlines	2	2	2	---	---	---	---	---	---	---	---	---	---
Flying Tiger Lines	35	35	24	11	---	---	---	---	---	---	---	---	---
Frontier Flying Service	1	---	---	---	---	---	---	---	1	---	---	1	---
General Aviation	6	---	---	---	---	---	---	---	6	---	---	6	---
Grand Canyon	2	---	---	---	---	2	---	2	---	---	---	---	---
Great American Airways	1	1	---	---	1	---	---	---	---	---	---	---	---
Gulf Air	8	8	---	8	---	---	---	---	---	---	---	---	---
Hawaiian Airlines	29	21	6	5	10	8	8	---	---	---	---	---	---
Henson Aviation	27	---	---	---	---	27	6	21	---	---	---	---	---
Holiday Airlines	5	---	---	---	---	5	---	5	---	---	---	---	---
Horizon Air	15	2	---	---	2	13	---	13	---	---	---	---	---
Imperial Aviation	1	---	---	---	---	1	---	1	---	---	---	---	---
Independent Air	4	4	3	1	---	---	---	---	---	---	---	---	---
Intercity Airlines dba Hawaii Airlines	1	---	---	---	---	1	---	1	---	---	---	---	---
Intercoastal Airways	2	---	---	---	---	---	---	---	2	---	---	2	---
Interface Group dba Five Star Airlines	2	2	---	2	---	---	---	---	---	---	---	---	---
International Air Services dba Spirit of America Airlines	24	19	---	18	1	5	5	---	---	---	---	---	---
International Parcel Express	2	2	2	---	---	---	---	---	---	---	---	---	---
Interstate Airlines	20	19	15	4	---	1	1	---	---	---	---	---	---
Jet East International Airlines	8	8	---	7	1	---	---	---	---	---	---	---	---
Jet Fleet	1	1	---	---	1	---	---	---	---	---	---	---	---
Key Airlines	7	7	---	7	---	---	---	---	---	---	---	---	---
Lincoln Airlines	2	---	---	---	---	2	---	2	---	---	---	---	---
Markair	9	5	---	---	5	4	4	---	---	---	---	---	---
Maui Airlines dba Maui Airlines & Samoa Air	3	---	---	---	---	3	---	3	---	---	---	---	---
McClain Airlines	1	1	---	1	---	---	---	---	---	---	---	---	---
Mesaba Airlines	6	---	---	---	---	6	---	6	---	---	---	---	---
Metro Express dba Eastern Metro Express	8	---	---	---	---	8	---	8	---	---	---	---	---
Metro Express II dba American Eagle	5	---	---	---	---	5	---	5	---	---	---	---	---
Metroflight dba American Eagle	8	---	---	---	---	8	---	8	---	---	---	---	---

TABLE 5.4 (continued)

TOTAL LARGE AIRCRAFT REPORTED IN OPERATION by DOMESTIC, FLAG AND SUPPLEMENTAL/SCHEDULED
CARGO AIR CARRIERS AND COMMERCIAL OPERATORS
BY CARRIER, AND BY ENGINE TYPE
1987

Name of Carrier	Total All Aircraft	Turbojet				Turboprop			Piston				Rotary
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	
MGM Grand Air	3	3	---	3	---	---	---	---	---	---	---	---	---
Mid Pacific Airlines	18	---	---	---	---	18	---	18	---	---	---	---	---
Midway Airlines	26	26	---	---	26	---	---	---	---	---	---	---	---
Midway Airlines 1984 dba													
Midway Express	11	11	---	---	11	---	---	---	---	---	---	---	---
Midwest Express Airlines	5	5	---	---	5	---	---	---	---	---	---	---	---
Million Air	2	2	2	---	---	---	---	---	---	---	---	---	---
Northern Air Cargo	10	---	---	---	---	---	---	---	10	10	---	---	---
Northwest Airlines	311	298	39	98	161	13	---	13	---	---	---	---	---
Orion Lift Service	56	56	19	29	8	---	---	---	---	---	---	---	---
Pacific Alaska Airlines	2	---	---	---	---	2	---	2	---	---	---	---	---
Pacific Interstate Airlines	1	1	---	1	---	---	---	---	---	---	---	---	---
Pacific Southwest	60	60	25	---	35	---	---	---	---	---	---	---	---
Pan Am Express	16	---	---	---	---	16	10	6	---	---	---	---	---
Pan Am Shuttle	1	1	---	1	---	---	---	---	---	---	---	---	---
Pan American World Airways	120	120	36	52	32	---	---	---	---	---	---	---	---
Pandora Enterprises	2	---	---	---	---	---	---	---	2	---	---	2	---
Pennsylvania Aviation dba													
Wings Airways	1	---	---	---	---	1	---	1	---	---	---	---	---
Pennsylvania Commuter Airlines													
dba Allegheny Commuter	9	---	---	---	---	9	---	9	---	---	---	---	---
People Express dba													
Continental Airlines	66	66	8	36	22	---	---	---	---	---	---	---	---
Piedmont Aviation	179	179	---	34	145	---	---	---	---	---	---	---	---
Pilgrim Aviation	10	---	---	---	---	10	---	10	---	---	---	---	---
Pocono Airlines dba													
Allegheny Commuter	7	---	---	---	---	7	---	7	---	---	---	---	---
Polar International	1	---	---	---	---	1	---	1	---	---	---	---	---
Presidential Airways	10	10	8	---	2	---	---	---	---	---	---	---	---
Princeville Airways	4	---	---	---	---	4	---	4	---	---	---	---	---
Providence Airlines	2	---	---	---	---	---	---	---	2	---	---	2	---
Provincetown Boston Airlines	13	---	---	---	---	4	---	4	9	---	---	9	---
Reeve Aleutian Airways	6	2	---	2	---	4	2	2	---	---	---	---	---
Renown Aviation	4	---	---	---	---	---	---	---	4	---	---	4	---
Resort Commuter	3	---	---	---	---	3	---	3	---	---	---	---	---
Rich International Airways	3	3	3	---	---	---	---	---	---	---	---	---	---
Rocky Mountain Airways	9	---	---	---	---	9	6	3	---	---	---	---	---
Rosenbalm Aviation	21	21	21	---	---	---	---	---	---	---	---	---	---
Ross Aviation	4	---	---	---	---	4	3	1	---	---	---	---	---
Ryan Air Service	1	---	---	---	---	1	---	1	---	---	---	---	---
Ryan International Airlines	21	21	---	16	5	---	---	---	---	---	---	---	---
Salair	8	---	---	---	---	---	---	---	8	---	---	8	---
Scenic Airlines	12	---	---	---	---	12	---	12	---	---	---	---	---
Sedalia Marshall Boonville													
Stage Line	14	---	---	---	---	14	---	14	---	---	---	---	---
Sierra Pacific Airlines	7	---	---	---	---	7	---	7	---	---	---	---	---
Simmons Airlines dba American													
Eagle	37	---	---	---	---	37	---	37	---	---	---	---	---
Skyfreighters	4	---	---	---	---	---	---	---	4	---	---	4	---
Skywest Airlines	5	---	---	---	---	5	---	5	---	---	---	---	---
Skyworld Airlines	10	10	9	1	---	---	---	---	---	---	---	---	---
South Pacific Island Airways	1	---	---	---	---	1	---	1	---	---	---	---	---
Southern Air Transport	26	9	9	---	---	17	17	---	---	---	---	---	---

TABLE 5.4 (continued)

TOTAL LARGE AIRCRAFT REPORTED IN OPERATION by DOMESTIC, FLAG AND SUPPLEMENTAL/SCHEDULED
CARGO AIR CARRIERS AND COMMERCIAL OPERATORS
BY CARRIER, AND BY ENGINE TYPE
1987

Name of Carrier	Total All Aircraft	Turbojet				Turboprop			Piston				Rotary
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	
Southern Jersey Airways	8	---	---	---	---	8	2	6	---	---	---	---	---
Southwest Airlines	75	75	---	---	75	---	---	---	---	---	---	---	---
Southwind Airlines	1	---	---	---	---	---	---	---	1	---	---	1	---
Stateswest Airlines	4	---	---	---	---	4	---	4	---	---	---	---	---
Suburban Airlines	10	---	---	---	---	10	---	10	---	---	---	---	---
Summit Airlines	5	---	---	---	---	5	---	5	---	---	---	---	---
Sun Coast Airlines	2	2	---	2	---	---	---	---	---	---	---	---	---
Sun Country Airlines	6	6	---	6	---	---	---	---	---	---	---	---	---
Sunbird Air dba Caribbean Air Transport	2	---	---	---	---	---	---	---	2	---	---	2	---
Sunworld Intl. Airways	7	7	---	---	7	---	---	---	---	---	---	---	---
Systems Intl. Airways	1	---	---	---	---	---	---	---	1	---	---	1	---
T P I Intl. Airways	4	1	1	---	---	3	3	---	---	---	---	---	---
Tower Air	4	4	4	---	---	---	---	---	---	---	---	---	---
Trans Air Link	12	---	---	---	---	---	---	---	12	12	---	---	---
Trans Continental Airlines	9	2	2	---	---	---	---	---	7	4	---	3	---
Trans Florida	2	---	---	---	---	---	---	---	2	---	---	2	---
Trans International Air	10	7	7	---	---	3	3	---	---	---	---	---	---
Trans World Airlines	195	195	14	103	78	---	---	---	---	---	---	---	---
Twin Town Leasing	2	---	---	---	---	---	---	---	2	---	---	2	---
United Airlines	374	374	55	214	105	---	---	---	---	---	---	---	---
United Aircraft Sales	1	1	---	1	---	---	---	---	---	---	---	---	---
Universal Airlines	2	---	---	---	---	---	---	---	2	2	---	---	---
USAir	158	158	---	10	148	---	---	---	---	---	---	---	---
Viking Intl. Airlines	4	---	---	---	---	4	---	4	---	---	---	---	---
Virgin Air dba Air St Thomas	1	---	---	---	---	---	---	---	1	---	---	1	---
Walkers Aviation Services	1	---	---	---	---	1	---	1	---	---	---	---	---
Westair Commuter dba United Express	9	---	---	---	---	9	---	9	---	---	---	---	---
World Airways	4	4	---	4	---	---	---	---	---	---	---	---	---
Wrangler Aviation	4	---	---	---	---	4	4	---	---	---	---	---	---
Zantop Intl. Airline	37	7	7	---	---	30	21	9	---	---	---	---	---

Source: Air Carrier Aircraft Utilization and Propulsion Reliability Report; Aviation Standards National Field Office, Federal Aviation Administration.

Note: The number of aircraft is the monthly average of the number of aircraft reported in use for the last three months of the year.

Large aircraft--an aircraft with a seating capacity of more than 30 seats or a payload of more than 7,500 pounds.

TABLE 5.5
TOTAL SMALL AIRCRAFT REPORTED IN OPERATION by COMMUTER AIR CARRIERS AND ON-DEMAND AIR TAXIS
BY CARRIER, AND BY ENGINE TYPE
1987

Name of Carrier	Total All Aircraft	Turbojet				Turboprop			Piston				Rotary Wing
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	
TOTAL	1,022	2	---	---	2	698	---	698*	309	---	3	306	13
40 Mile Air	1	---	---	---	---	---	---	---	1	---	---	1	---
Aero Coach International	25	---	---	---	---	---	---	---	25	---	---	25	---
Air Cape	4	---	---	---	---	---	---	---	4	---	---	4	---
Air Caribe	3	---	---	---	---	---	---	---	3	---	---	3	---
Air Kentucky Airlines dba Allegheny Commuter	9	---	---	---	---	9	---	9	---	---	---	---	---
Air Midwest	50	---	---	---	---	50	---	50	---	---	---	---	---
Air Molokai	8	---	---	---	---	---	---	---	8	---	---	8	---
Air Nevada Airlines	8	---	---	---	---	---	---	---	8	---	---	8	---
Air New Orleans dba Air New Orleans & Continental Express	7	---	---	---	---	7	---	7	---	---	---	---	---
Air Sunshine	3	---	---	---	---	---	---	---	3	---	---	3	---
Air Tour Acquisition dba Panorams Air Tour	10	---	---	---	---	---	---	---	10	---	---	10	---
Airways International	4	---	---	---	---	---	---	---	4	---	---	4	---
Alpine Aviation	3	---	---	---	---	---	---	---	3	---	---	3	---
Atlantic Southeast Airlines	16	---	---	---	---	16	---	16	---	---	---	---	---
Atlantis Airlines dba Eastern Atlantis Express	5	---	---	---	---	5	---	5	---	---	---	---	---
Audi Air	5	---	---	---	---	---	---	---	5	---	---	5	---
Avair dba American Eagle	21	---	---	---	---	21	---	21	---	---	---	---	---
Aviation Associates dba Sunaire	1	---	---	---	---	---	---	---	1	---	---	1	---
Baker Aviation	1	---	---	---	---	---	---	---	1	---	---	1	---
Baldwin, Daniel dba Wrangell Air Service	2	---	---	---	---	---	---	---	2	---	---	2	---
Barrow	1	---	---	---	---	---	---	---	1	---	---	1	---
Bemidji	3	---	---	---	---	1	---	1	2	---	---	2	---
Bering Air	5	---	---	---	---	---	---	---	5	---	---	5	---
Big Island	2	---	---	---	---	---	---	---	2	---	---	2	---
Big Sky Airlines	11	---	---	---	---	8	---	8	3	---	---	3	---
Bo S Aire Airline	2	---	---	---	---	---	---	---	2	---	---	2	---
Britt Airways dba Britt Airways & Eastern Express	19	---	---	---	---	19	---	19	---	---	---	---	---
Brockway Air NY dba Piedmont Commuter	11	---	---	---	---	11	---	11	---	---	---	---	---
Brockway Air VT dba Piedmont Commuter	4	---	---	---	---	4	---	4	---	---	---	---	---
Business Air	10	---	---	---	---	4	---	4*	6	---	---	6	---
Business Express	15	---	---	---	---	15	---	15	---	---	---	---	---
Cape Smythe Air Service	6	---	---	---	---	---	---	---	6	---	---	6	---
Capitol Air Service	3	---	---	---	---	---	---	---	3	---	---	3	---
Caribbean Express dba Presidential One	6	---	---	---	---	---	---	---	---	---	---	---	---
Catskill Airways	3	---	---	---	---	---	---	---	---	---	---	---	---
CCair dba Piedmont Commuter	17	---	---	---	---	---	---	---	---	---	---	---	---
Chalks Intl. Airlines	4	---	---	---	---	---	---	---	---	---	---	---	---

* Includes 3 single engine aircraft.

TABLE 5.5 (continued)
TOTAL SMALL AIRCRAFT REPORTED IN OPERATION BY COMMUTER AIR CARRIERS AND ON-DEMAND AIR TAXIS
BY CARRIER, AND BY ENGINE TYPE
1987

Name of Carrier	Total All Aircraft	Turbojet				Turboprop			Piston				Rotary
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	Wing
Chaparral Air Service dba													
American Eagle	8	---	---	---	---	8	---	8	---	---	---	---	---
Christman Air Systems	5	---	---	---	---	5	---	5	---	---	---	---	---
Clearwater Flying Service													
dba Empire Airways	2	---	---	---	---	2	---	2	---	---	---	---	---
Coastal Airlines dba													
National Air	4	---	---	---	---	3	---	3	1	---	---	1	---
Coastal Express	1	---	---	---	---	1	---	1	---	---	---	---	---
Colgan Airways dba													
Continental Express	2	---	---	---	---	2	---	2	---	---	---	---	---
Comair	43	---	---	---	---	43	---	43	---	---	---	---	---
Crown Air	5	---	---	---	---	---	---	---	5	---	---	5	---
Custom Aviation dba Desert													
Sun Airlines	2	---	---	---	---	1	---	1	1	---	---	1	---
DHL Airways	12	1	---	---	1	10	---	10	---	---	---	---	1
Direct Air	1	---	---	---	---	---	---	---	1	---	---	1	---
ERA Helicopters dba													
Jet Alaska	1	---	---	---	---	1	---	1	---	---	---	---	---
Executive Air Charter dba													
American Eagle	13	---	---	---	---	11	---	11	2	---	---	2	---
Express Airlines dba													
Northwest Air Link	34	---	---	---	---	34	---	34	---	---	---	---	---
Fairways	1	---	---	---	---	1	---	1	---	---	---	---	---
Fischer Brothers Aviation													
dba Midway Commuter	9	---	---	---	---	9	---	9	---	---	---	---	---
Flamenco Airways	5	---	---	---	---	---	---	---	5	---	1	4	---
Flight Lines dba Flight													
Line & Southern Express	14	---	---	---	---	7	---	7	7	---	---	7	---
Friendship Air Alaska	3	---	---	---	---	---	---	---	3	---	---	3	---
Frontier Flying Service	6	---	---	---	---	1	---	1	5	---	---	5	---
G P Express	9	---	---	---	---	2	---	2	7	---	---	7	---
General Aviation	7	---	---	---	---	7	---	7	---	---	---	---	---
Great Lakes Aviation	5	---	---	---	---	3	---	3	2	---	---	2	---
Harbor Airlines	4	---	---	---	---	---	---	---	4	---	---	4	---
Hermens Air	3	---	---	---	---	---	---	---	3	---	---	3	---
Horizon Air	25	---	---	---	---	25	---	25	---	---	---	---	---
Imperial Aviation	2	1	---	---	1	---	---	---	1	---	---	1	---
Intercity Airlines dba													
Havasu Airlines	3	---	---	---	---	---	---	---	3	---	---	3	---
International Transfer dba													
Pro Air Service	4	---	---	---	---	---	---	---	4	---	---	4	---
Jetstream International													
Airlines	25	---	---	---	---	25	---	25	---	---	---	---	---
JIB dba Action Air Charters	3	---	---	---	---	---	---	---	3	---	---	3	---
Kenosha Aero dba Alliance													
Airlines	6	---	---	---	---	---	---	---	6	---	---	6	---

TABLE 5.5 (continued)
TOTAL SMALL AIRCRAFT REPORTED IN OPERATION BY COMMUTER AIR CARRIERS AND ON-DEMAND AIR TAXIS
BY CARRIER, AND BY ENGINE TYPE
1987

Name of Carrier	Total All Aircraft	Turbojet				Turboprop			Piston				Rotary Wing
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	
Kingman Aviation dba Golden Pacific Airlines	4	---	---	---	---	---	---	---	4	---	---	4	---
L A B Flying Service	5	---	---	---	---	---	---	---	5	---	---	5	---
Larry's Flying Service	4	---	---	---	---	---	---	---	4	---	---	4	---
Mall Airways	7	---	---	---	---	7	---	7	---	---	---	---	---
Manua Air Transport	1	---	---	---	---	---	---	---	1	---	---	1	---
Mesa Airlines	12	---	---	---	---	12	---	12	---	---	---	---	---
Mesaba Airlines	7	---	---	---	---	7	---	7	---	---	---	---	---
Metro Express II dba American Eagle	10	---	---	---	---	10	---	10	---	---	---	---	---
Metro Express dba Eastern Metro Express	21	---	---	---	---	21	---	21	---	---	---	---	---
Metroflight dba American Eagle	9	---	---	---	---	9	---	9	---	---	---	---	---
Midcontinent Airlines	3	---	---	---	---	2	---	2	1	---	---	1	---
Midstate Airlines	4	---	---	---	---	4	---	4	---	---	---	---	---
Midwest Division of Southwest Aviation	3	---	---	---	---	---	---	---	3	---	---	3	---
Montauk Caribbean Airways dba Long Island Airlines	4	---	---	---	---	---	---	---	4	---	---	4	---
MST Aviation	3	---	---	---	---	---	---	---	3	---	---	3	---
N E Airlines	3	---	---	---	---	---	---	---	3	---	---	3	---
New York Helicopter	4	---	---	---	---	---	---	---	---	---	---	---	4
Nicholson Air Service dba Cumberland Airlines	4	---	---	---	---	---	---	---	4	---	---	4	---
NPA dba United Express	8	---	---	---	---	8	---	8	---	---	---	---	---
Oklahoma Airways dba Altus Airlines	3	---	---	---	---	---	---	---	3	---	---	3	---
Omniflight Helicopter Service	5	---	---	---	---	---	---	---	---	---	---	---	5
Peninsula Airways	3	---	---	---	---	3	---	3	---	---	---	---	---
Pennsylvania Aviation dba Wings Airways	5	---	---	---	---	---	---	---	5	---	2	3	---
Pennsylvania Commuter Airlines dba Allegheny Commuter	9	---	---	---	---	9	---	9	---	---	---	---	---
Pilgrim Aviation	5	---	---	---	---	5	---	5	---	---	---	---	---
Pocono Airlines dba Allegheny Commuter	1	---	---	---	---	1	---	1	---	---	---	---	---
Precision Valley Aviation dba Precision Airlines & Eastern Express	12	---	---	---	---	12	---	12	---	---	---	---	---
Presidential Airways	7	---	---	---	---	7	---	7	---	---	---	---	---
Prompt Air	2	---	---	---	---	---	---	---	2	---	---	2	---
Propheter Construction	2	---	---	---	---	---	---	---	2	---	---	2	---
Provincetown Boston Airlines	28	---	---	---	---	8	---	8	20	---	---	20	---
Resort Air dba Trans World Express	15	---	---	---	---	15	---	15	---	---	---	---	---
Resorts International	2	---	---	---	---	---	---	---	---	---	---	---	2
Rio Airways	2	---	---	---	---	2	---	2	---	---	---	---	---
Rocky Mountain Airways	3	---	---	---	---	3	---	3	---	---	---	---	---
Royale Airlines	10	---	---	---	---	10	---	10	---	---	---	---	---
Ryan Air Service	18	---	---	---	---	3	---	3	15	---	---	15	---
S F O Helicopter Airlines	2	---	---	---	---	---	---	---	1	---	---	1	1
Sallees Aviation	2	---	---	---	---	---	---	---	2	---	---	2	---
San Juan Airlines & Pearson Aircraft	12	---	---	---	---	3	---	3	9	---	---	9	---
Sat-Air	11	---	---	---	---	11	---	11	---	---	---	---	---
Scenic Airlines	1	---	---	---	---	1	---	1	---	---	---	---	---
Simmons Airlines dba American Eagle	5	---	---	---	---	5	---	5	---	---	---	---	---
Skywest Airlines	38	---	---	---	---	38	---	38	---	---	---	---	---

TABLE 5.5 (continued)
TOTAL SMALL AIRCRAFT REPORTED IN OPERATION BY COMMUTER AIR CARRIERS AND ON-DEMAND AIR TAXIS
BY CARRIER, AND BY ENGINE TYPE

1987

Name of Carrier	Total All Aircraft	Turbojet			Turboprop			Piston			Rotary		
		Total	4-eng.	3-eng.	2-eng.	Total	4-eng.	2-eng.	Total	4-eng.	3-eng.	2-eng.	Wing
South Central Air	10	---	---	---	---	2	---	2	8	---	---	8	---
Stateswest Airlines	2	---	---	---	---	2	---	2	---	---	---	---	---
Tenasco Helicopters	1	---	---	---	---	---	---	---	1	---	---	1	---
Tennessee Airways dba Iowa Airways	4	---	---	---	---	3	---	3	1	---	---	1	---
Texas National Airlines	3	---	---	---	---	3	---	3	---	---	---	---	---
Trans Colorado Airlines dba Continental Express	11	---	---	---	---	11	---	11	---	---	---	---	---
Valley Flying Service	5	---	---	---	---	---	---	---	5	---	---	5	---
Vieques Air Link	9	---	---	---	---	---	---	---	9	---	---	9	---
Virgin Air dba Air St Thomas	10	---	---	---	---	---	---	---	10	---	---	10	---
Virgin Island Seaplane Shuttle	7	---	---	---	---	---	---	---	7	---	---	7	---
Walkers Aviation	1	---	---	---	---	---	---	---	1	---	---	1	---
Westair Commuter dba United Express	33	---	---	---	---	33	---	33	---	---	---	---	---
Wings West	32	---	---	---	---	32	---	32	---	---	---	---	---

Source: Air Carrier Aircraft Utilization and Propulsion Reliability Report; Aviation Standards National Field Office, Federal Aviation Administration.

Note: The number of aircraft is the monthly average of the number of aircraft reported in use for the last three months of the year.

Small aircraft--an aircraft with a seating capacity of 30 seats or less or a payload of 7,500 pounds or less.

VI. U.S. CERTIFICATED AIR CARRIERS--OPERATING DATA

The traffic and financial data contained in this chapter include data for all U.S. Certificated Air Carriers--those holding a certificate issued under Section 401 of the Federal Aviation Act of 1958; and the commuter air carriers--those holding a certificate under Section 298C of the Federal Aviation Act of 1958.

The data are classified in two broad operational categories: "domestic" and "international". Beginning January 1, 1981, "domestic" encompasses operations within and between the 50 states of the United States, the District of Columbia, the Commonwealth of Puerto Rico and the Virgin Islands. It also encompasses Canadian transborder operations and for certain carriers, Mexican transborder operations. All other categories are considered "international". For periods prior to January 1, 1981, the data are classified in this same manner, except statistics for Puerto Rico and Virgin Islands operations are included in the international category rather than the domestic.

The certificated carriers are also grouped into "large" and "small" according to the size aircraft that the carrier operates. A "large" carrier is one that operates aircraft designed to have a maximum passenger seating capacity of 60 seats or more or a maximum payload capacity of 18,000 pounds or more, or conducts international operations. A "small" certificated carrier operates aircraft of less than 60 seats or a payload capacity of less than 18,000. The commuter carriers are grouped with the small certificated carriers.

The large certificated air carriers, beginning in 1981, were grouped according to their total operating revenue as listed below:

<u>Carrier Groups</u>	<u>Carriers with Annual Operating Revenues of:</u>
Major	\$1,000,000,000+
Nationals	\$75,000,000 - \$1,000,000,000
Large Regionals	\$10,000,000 - \$74,999,999
Medium Regionals	0 - \$9,999,999

The tables in this chapter are divided into two groups: 6.1-6.15 cover the large carriers and 6.16-6.18 cover the small commuter and large certificated medium regional carriers. Please note that some large certificated medium regional carriers are included in both groups of tables. The information for the large air carriers was obtained from the following sources published by the Research & Special Programs Administration of the Department of Transportation.

Air Carrier Traffic Statistics compiled from RSPA Form 41
Schedules T-1(a), T-1(b) and T-1(c).

Air Carrier Financial Statistics compiled from RSPA Form 41
Schedules B-1 and P-1.

The information for the small certificated, commuter and large certificated medium regional carriers was obtained from:

Air Carrier Industry Scheduled Service Traffic Statistics: Medium
Regional Section: compiled from RSPA Form 298C Schedules A-1 and
T-1.

TABLE 6.1

LARGE CERTIFICATED AIR CARRIERS
1986 AND 1987

MAJORS

American	Pan American
Continental	Piedmont
Delta	Republic
Eastern	Trans World
Federal Express	United
Flying Tiger	US Air
Northwest	Western

NATIONALS

Air California	Midway
Air Wisconsin	New York Air
Alaska	Ozark
Aloha	Pacific Southwest
American West	People Express
American Trans Air	Southwest
Braniff	Transamerica
Frontier	TranStar
Hawaiian	World
Jet America	Zantop

LARGE REGIONALS

Air America	Evergreen	Markair	Rosenbalm
Air Atlanta	Five Star	Mid Pacific	Royal West
Arrow	Florida Express	Midwest Express	Ryan
Aspen	Gulf Air Transport	Northern Air	Skystar
Britt	Horizon Air	Pilgrim	Sky World
Emerald	International Air Service	Presidential	Southern Air
Empire	Interstate	Reeve	Sun Country
	Key	Rich	Sunworld
			Tower

MEDIUM REGIONALS

Aerial	Challenge Air Int'l	Jet East	Samoa
Aeron	Conner	Jet Fleet	Skybus
Amerijet	Florida West	McClain	South Pacific
Atlantic Gulf	Galaxy	MGM Grand	Trans Air Link
Buffalo	Great American	Millon	Trans International
Challenge	Independent Air	Orion	Worldwide
Challenge Air Cargo	Jet Charter	Pacific Interstate	

TABLE 6.2

TRAFFIC DATA, ALL SERVICES (SCHEDULED AND NONSCHEDULED)
OF THE LARGE CERTIFICATED AIR CARRIERS
1986 AND 1987

Traffic Category	Total System		Domestic Operations		International Operations	
	1986 (R)	1987 (P)	1986 (R)	1987 (P)	1986 (R)	1987 (P)
Revenue Passenger Miles Flown (000)	378,922,631	417,823,104	307,885,204	329,069,600	71,037,527	88,753,504
Available Seat Miles (000)	623,073,312	670,691,212	505,734,205	532,993,775	117,339,107	137,697,437
Revenue Passenger Enplanements (000)	426,314	455,080	398,422	420,429	27,892	34,651
Revenue Ton Miles Flown (000)*						
Passenger	48,883,854	54,801,863	37,148,059	40,450,441	11,735,795	14,351,422
Freight	37,895,645	41,762,319	30,792,350	32,911,610	7,103,295	8,850,709
U.S. Mail	9,306,296	11,284,774	5,108,514	6,226,749	4,197,782	5,058,025
Foreign Mail	1,648,143	1,720,132	1,246,337	1,311,441	401,806	408,691
	33,270	34,570	1,062	567	32,208	34,003
Revenue Aircraft Miles Flown (000)	3,672,830	4,177,354	3,421,492	3,646,477	451,338	530,877

* Details may not add to total due to rounding.

(P) Preliminary

(R) Revised

Source: "Air Carrier Traffic Statistics" - RSPA

TABLE 6.3

REVENUE AIRCRAFT DEPARTURES, MILES AND HOURS FLOWN,
AND AVERAGE SPEED IN DOMESTIC ALL SERVICES
OF THE LARGE CERTIFICATED AIR CARRIERS
1978 - 1987

Year	Revenue Aircraft Departures	Revenue Aircraft Miles Flown (000)	Revenue Aircraft Hours Flown	Average Airborne Speed (Miles Per Hour)
1978	4,874,565	2,249,102	5,449,292	413
1979	5,232,381	2,471,401	6,090,313	406
1980	5,222,879	2,523,375	6,247,795	404
1981	5,099,380	2,442,294	6,080,401	402
1982	4,860,482	2,442,292	5,962,431	410
1983	4,920,125	2,552,942	6,174,957	413
1984	5,358,454	2,875,402	6,970,886	412
1985	5,760,232	3,046,440	7,457,030	409
1986 (R)	6,336,150	3,421,492	8,223,615	416
1987 (P)	6,497,808	3,646,477	8,677,478	420

(R) Revised.

(P) Preliminary.

Source: "Air Carrier Traffic Statistics" - RSPA

TABLE 6.4

REVENUE AIRCRAFT DEPARTURES, MILES AND HOURS FLOWN,
AND AVERAGE SPEED IN INTERNATIONAL ALL SERVICES
OF THE LARGE CERTIFICATED AIR CARRIERS
1978 - 1987

Year	Revenue Aircraft Departures ¹	Revenue Aircraft Miles Flown (000)	Revenue Aircraft Hours Flown	Average Airborne Speed (Miles Per Hour)
1978	301,802	359,260	735,334	489
1979	253,821	387,737	788,598	492
1980	256,415	400,791	819,518	489
1981	229,661	356,270	729,827	488
1982	233,726	362,183	739,820	490
1983	243,029	362,994	740,896	490
1984	241,087	388,794	792,267	491
1985	244,888	415,355	846,197	491
1986 (R)	271,735	451,338	923,641	489
1987 (P)	310,748	530,877	1,080,179	491

(R) Revised.

(P) Preliminary.

Source: "Air Carrier Traffic Statistics" - RSPA

TABLE 6.5
TOTAL TON-MILES AVAILABLE IN ALL SERVICES OF THE
LARGE CERTIFICATED AIR CARRIERS
1978 - 1987

(Thousands of Ton-Miles)

Year	Large Certificated Air Carriers		
	Total ¹ System	Domestic Operations	Inter- national Operations
1978	56,869,894	43,557,208	13,312,686
1979	62,545,477	47,339,854	15,205,593
1980	66,162,896	49,396,481	16,763,237
1981	64,244,767	48,669,968	15,574,092
1982	65,769,930	49,757,601	16,012,329
1983	68,778,295	52,724,653	15,920,720
1984	76,298,288	58,942,974	17,355,314
1985	80,565,182	61,337,807	19,227,375
1986 (R)	90,243,958	69,771,737	20,472,221
1987 (P)	98,999,146	75,625,306	23,373,840

¹ Categories may not add to total due to rounding.

(P) Preliminary.

(R) Revised.

Source: "Air Carrier Traffic Statistics" - RSPA

TABLE 6.6

REVENUE TON-MILES FLOWN IN ALL SERVICES BY
LARGE CERTIFICATED AIR CARRIERS
1978 - 1987

(Thousands of Tons)

Year	Large Certificated Air Carriers		
	Total ¹	Domestic Operations	International Operations
1978	31,095,184	23,151,995	7,943,189
1979	34,550,392	25,676,130	8,874,792
1980	34,655,519	24,964,909	9,689,068
1981	33,923,495	24,801,224	9,122,094
1982	35,050,938	25,838,708	9,212,230
1983	38,011,227	28,271,465	9,624,208
1984	41,277,948	30,561,436	10,716,512
1985	44,154,779	32,939,216	11,215,563
1986 (R)	48,883,854	37,148,059	11,735,795
1987 (P)	54,801,863	40,450,441	14,351,422

¹ Categories may not add to total due to rounding.

(P) Preliminary.

(R) Revised.

Source: "Air Carrier Traffic Statistics" - RSPA

TABLE 6.7

PASSENGER OPERATIONS IN SCHEDULED DOMESTIC OPERATIONS
OF THE LARGE CERTIFICATED AIR CARRIERS
1978 - 1987

Year	Revenue Passenger Enplanements (000)	Revenue Passenger Miles (000)	Available Seat-Miles (000)	Revenue Passenger Load Factor ¹	Average On-Line Passenger Trip Length (Miles)	Average Passenger Revenue Per Passenger Miles (Cents)
1978	253,957	182,669,238	299,541,841	61.0	719	8.49
1979	292,700	208,890,884	332,796,130	62.8	714	8.93
1980	272,829	200,829,303	346,028,272	58.0	736	11.49
1981	265,304	198,714,755	346,171,952	57.4	749	12.74
1982	274,342	210,149,315	359,527,716	58.5	766	12.21
1983	296,721	226,908,925	379,150,158	59.8	765	12.13
1984	321,047	243,692,254	422,506,609	57.7	759	12.79
1985	357,109	270,584,011	445,825,864	60.7	758	12.32
1986 (R)	393,864	302,089,903	497,990,815	60.7	767	11.18
1987 (P)	416,468	324,480,986	526,663,456	61.6	779	11.50

¹ Percent revenue passenger-miles of available seat-miles.

(P) Preliminary.

(R) Revised.

Source: "Air Carrier Traffic Statistics" - RSPA

TABLE 6.8

PASSENGER OPERATIONS IN SCHEDULED INTERNATIONAL OPERATIONS
OF THE LARGE CERTIFICATED AIR CARRIERS
1978 - 1987

Year	Revenue Passenger Enplanements (000)	Revenue Passenger Miles (000)	Available Seat-Miles (000)	Revenue Passenger Load Factor (Percent) ¹	Average On-Line Passenger Trip Length (Miles)	Average Passenger Revenue Per Passenger Miles (Cents)
1978	20,759	44,111,944	69,208,878	63.7	2,125	7.49
1979	24,163	53,132,491	83,330,299	63.8	2,199	7.66
1980	24,074	54,362,811	86,506,831	62.8	2,258	8.78
1981	20,672	50,173,046	78,725,278	63.7	2,427	9.46
1982	19,760	49,494,555	80,591,490	61.4	2,505	9.57
1983	21,917	54,920,223	85,387,821	64.3	2,506	10.21
1984	23,636	61,423,601	92,816,730	66.2	2,599	9.38
1985	24,913	65,819,010	101,962,568	64.6	2,642	9.80
1986 (R)	25,082	64,455,952	109,445,032	58.9	2,570	10.16
1987 (P)	30,839	79,826,798	121,750,942	65.6	2,589	10.38

¹ Percent revenue passenger-miles of available seat-miles.

(P) Preliminary.

(R) Revised.

Source: "Air Carrier Traffic Statistics" - RSPA

TABLE 6.9

**REVENUE AIRCRAFT-MILES FLOWN IN ALL SERVICES
OF LARGE CERTIFICATED AIR CARRIERS: 1978 - 1987**

Thousands of Miles

Year	Total ¹	Domestic Operations	International Operations
1978	2,608,362	2,249,102	359,260
1979	2,859,138	2,471,401	387,737
1980	2,924,234	2,523,375	400,791
1981	2,703,219	2,442,294	356,270
1982	2,804,475	2,442,292	362,183
1983	2,922,583	2,552,942	362,994
1984	3,264,196	2,875,402	388,794
1985	3,461,795	3,046,440	415,355
1986 (R)	3,872,830	3,421,492	451,338
1987 (P)	4,177,354	3,646,477	530,877

¹ Details may not add to total due to rounding.

(P) Preliminary.

(R) Revised

Source: "Air Carrier Traffic Statistics" - RSPA

TABLE 6.10
OPERATING REVENUE OF DOMESTIC OPERATIONS, ALL SERVICES
LARGE CERTIFICATED AIR CARRIERS
MAJOR, NATIONAL, AND LARGE REGIONAL GROUPS
1978 - 1987
(Thousands of Dollars)

Year	Total Operating Revenues ¹		Passenger		U.S. Mail (Including Subsidy)		Express and Freight		Excess Baggage		Other	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1978	18,189,473	100.0	15,508,727	85.3	335,525	1.8	1,326,842	7.3	22,900	0.1	995,474	5.5
1979	21,652,405	100.0	18,719,830	86.5	415,737	1.9	1,455,828	6.7	27,681	0.1	1,033,313	4.8
1980	26,403,576	100.0	23,081,487	87.4	529,572	2.0	1,552,836	5.9	32,168	0.1	1,207,184	4.6
1981	28,787,566	100.0	25,504,233	88.6	590,746	2.1	1,659,182	5.8	36,101	0.1	997,305	3.4
1982	28,727,699	100.0	25,439,640	88.6	571,822	2.0	1,505,035	5.2	42,045	0.1	1,169,148	4.1
1983	31,014,393	100.0	27,519,079	88.7	537,234	1.7	1,601,895	5.2	51,967	0.2	1,304,221	4.2
1984	35,393,945	100.0	31,436,951	88.8	559,138	1.6	1,715,979	4.8	70,032	0.2	1,611,842	4.6
1985	37,628,540	100.0	33,343,005	88.6	740,384	1.9	1,580,914	4.2	78,113	0.2	1,886,123	5.0
1986(R)	41,000,506	100.0	33,813,923	82.5	682,643	1.7	4,278,008	10.4	85,438	0.2	2,140,496	5.2
1987(P)	45,338,861	100.0	37,306,670	82.3	705,614	1.6	4,837,563	10.7	66,259	0.1	2,420,756	5.3

¹ Details may not add to total due to rounding.

(P) Preliminary

(R) Revised

Note: 1976-1981 include financial statistics for medium regionals; data for 1982 and after shown separately on Table 6.14.

Source: "Air Carrier Financial Statistics", Table 1 -- RSPA

TABLE 6.11
OPERATING EXPENSES OF DOMESTIC OPERATIONS, ALL SERVICES
LARGE CERTIFICATED AIR CARRIERS
MAJOR, NATIONAL, AND LARGE REGIONAL GROUPS
1978 - 1987
(Thousands of Dollars)

	Aircraft Operating Expenses										Net Operating Income or Loss Amount
	Total Operating Expenses ¹		Flight Operations		Maintenance		Depreciation and Amortization		Ground and Indirect Expense		
			Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	
1978	17,171,530	100.0	5,669,021	33.0	2,154,909	12.5	1,230,885	7.2	8,116,715	47.3	1,017,943
1979	21,522,972	100.0	7,998,440	37.2	2,457,497	11.4	1,372,944	6.4	9,693,961	45.0	129,433
1980	26,409,238	100.0	11,029,423	41.8	2,757,663	10.4	1,560,312	5.9	11,061,841	41.9	-5,662
1981	29,051,130	100.0	12,036,704	41.4	2,821,933	9.7	1,723,406	5.9	12,469,087	42.9	-263,564
1982	29,478,115	100.0	11,529,364	39.1	2,709,440	9.2	1,876,106	6.4	13,363,206	45.3	-750,416
1983	31,185,661	100.0	11,370,479	36.5	2,877,991	9.2	2,107,283	6.8	14,829,909	47.6	-171,268
1984	33,811,742	100.0	12,160,526	36.0	3,175,865	9.4	2,223,275	6.6	16,252,075	48.1	1,582,203
1985	36,610,744	100.0	12,684,018	34.7	3,604,447	9.8	2,318,066	6.3	18,004,213	49.2	1,017,796
1986(R)	39,934,036	100.0	11,368,346	28.5	4,475,473	11.2	2,652,497	6.6	21,437,719	53.7	1,066,470
1987(P)	43,604,509	100.0	12,383,053	28.4	4,877,118	11.2	2,842,202	6.5	23,502,137	53.9	1,734,352

¹ Details may not add to total due to rounding.

(P) Preliminary

(R) Revised

Note: 1976-1981 include financial statistics for medium regionals; data for 1982 and after shown separately on Table 6.14.

Source: "Air Carrier Financial Statistics", Table 1 -- RSPA

TABLE 6.12

OPERATING REVENUE OF INTERNATIONAL OPERATIONS, ALL SERVICES
LARGE CERTIFICATED AIR CARRIERS
MAJOR, NATIONAL, AND LARGE REGIONAL GROUPS
1978 - 1987
(Thousands of Dollars)

Year	Total Operating Revenues ¹		Passenger		U.S. Mail (Including Subsidy)		Express and Freight		Excess Baggage		Other	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1978	4,702,663	100.0	3,305,236	70.3	107,903	2.3	660,040	14.0	20,020	0.4	610,168	13.0
1979	5,574,590	100.0	4,071,862	73.0	119,948	2.2	755,492	13.6	22,743	0.4	604,546	10.8
1980	6,543,033	100.0	4,777,026	73.0	163,204	2.5	875,682	13.4	24,749	0.4	702,372	10.7
1981	6,390,140	100.0	4,916,469	77.0	165,467	2.6	984,474	15.4	24,654	0.4	299,075	4.7
1982	6,434,904	100.0	4,959,347	77.1	176,930	2.8	989,620	15.4	25,358	0.4	283,448	4.4
1983	7,163,275	100.0	5,604,902	78.2	152,455	2.1	999,405	14.0	23,012	0.3	383,502	5.4
1984	7,974,706	100.0	6,074,406	76.2	157,703	2.0	1,169,259	14.8	27,447	0.3	545,892	6.8
1985	8,302,279	100.0	6,451,324	77.7	160,543	1.9	1,130,050	13.6	27,832	0.3	531,528	6.4
1986(R)	8,621,149	100.0	6,550,550	76.0	153,627	1.8	1,451,488	16.8	28,254	0.3	437,231	5.1
1987(P)	10,790,310	100.0	8,286,941	76.8	179,719	1.7	1,746,443	16.2	32,593	0.3	544,614	5.0

¹ Details may not add to total due to rounding.
(P) Preliminary.
(R) Revised.

Note: 1976-1981 include financial statistics for medium regionals; data for 1982 and after shown separately on Table 6.14.

Source: "Air Carrier Financial Statistics", Table 1 -- RSPA

TABLE 6.13
OPERATING EXPENSES OF INTERNATIONAL OPERATIONS, ALL SERVICES
LARGE CERTIFICATED AIR CARRIERS
MAJOR, NATIONAL, AND LARGE REGIONAL GROUPS
1978 - 1987
(Thousands of Dollars)

	Aircraft Operating Expenses										Net Operating Income or Loss Amount
	Total Operating Expenses ¹		Flight Operations		Maintenance		Depreciation and Amortization		Ground and Indirect Expense		
			Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	
1978	4,355,044	100.0	1,351,126	31.0	498,483	11.5	323,352	7.4	2,182,062	50.1	347,620
1979	5,505,332	100.0	1,960,372	35.6	571,215	10.4	351,700	6.4	2,662,043	47.6	69,258
1980	6,765,623	100.0	2,775,331	41.0	615,982	9.1	385,396	5.7	2,988,914	44.2	-222,590
1981	6,574,441	100.0	2,756,877	42.0	539,605	8.2	382,367	5.9	2,895,591	44.0	-184,300
1982	6,451,807	100.0	2,596,134	40.2	511,795	7.9	396,159	6.1	2,947,719	45.7	-17,103
1983	6,692,776	100.0	2,490,076	37.2	547,741	8.2	388,708	5.8	3,266,252	48.8	470,499
1984	7,484,679	100.0	2,628,664	35.1	676,950	9.0	445,857	6.0	3,733,208	49.9	490,028
1985	7,983,705	100.0	2,738,439	34.4	768,018	9.6	481,560	6.0	3,995,687	50.0	318,574
1986(R)	8,458,084	100.0	2,401,911	28.4	900,784	10.7	517,524	6.1	4,637,866	54.8	163,066
1987(P)	10,121,178	100.0	2,795,221	27.6	1,080,944	10.7	528,835	5.2	5,716,178	56.5	669,133

¹ Details may not add to total due to rounding.

(P) Preliminary.

(R) Revised.

Note: 1976-1981 include financial statistics for medium regionals; data for 1982 and after shown separately on Table 6.15.

Source: "Air Carrier Financial Statistics", Table 1 -- RSPA

TABLE 6.14

OPERATING REVENUE, SYSTEM, ALL SERVICES
LARGE CERTIFICATED AIR CARRIERS
MEDIUM REGIONAL GROUP
1982 - 1987
(Thousands of Dollars)

Year	Total Operating Revenues		Scheduled Passenger		Scheduled Other		Non Scheduled Service		Subsidy		Other Transport Related	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1982	448,159	100.0	154,261	34.5	39,690	8.9	207,558	46.3	6,030	1.3	40,259	9.0
1983	108,082	100.0	19,126	17.7	9,897	9.2	73,469	68.0	2,132	2.0	3,457	3.2
1984	159,837	100.0	61,966	38.8	7,063	4.4	83,249	52.1	1,561	1.0	5,998	3.7
1985	150,754	100.0	38,045	25.2	19,467	12.9	89,863	59.6	0	0.0	3,379	2.2
1986 (R)	81,971	100.0	10,576	12.9	43	0.0	61,729	75.4	0	0.0	9,624	11.7
1987 (P)	60,509	100.0	0	0.0	4,485	7.4	54,443	90.0	0	0.0	1,580	2.6

Source: "Air Carrier Financial Statistics", Table 3 -- RSPA

Note: Wide fluctuations in total revenues and expenses are caused by fluctuations in the number of medium regional carriers. Some have been upgraded to large regional carriers and some have gone out of business. For list of medium regional carriers see "Air Carrier Financial Statistics" for year in question.

TABLE 6.15

OPERATING EXPENSES, SYSTEM, ALL SERVICES
LARGE CERTIFICATED AIR CARRIERS
MEDIUM REGIONAL GROUP
1982 - 1987
(Thousands of Dollars)

Year	Total Operating Expenses		Flying Operations		Maintenance		General and Administrative		Depreciation and Amortization		Transport Related	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1982	467,998	100.0	242,231	51.8	52,816	11.2	122,861	26.3	19,791	4.2	30,299	6.5
1983	111,713	100.0	68,130	61.0	17,693	15.8	18,327	16.4	7,353	6.6	210	0.2
1984	159,680	100.0	89,995	56.4	21,572	13.5	37,866	23.7	9,885	6.2	361	0.2
1985	151,527	100.0	79,920	52.8	22,585	14.9	42,703	28.2	5,179	3.4	1,140	0.7
1986 (R)	87,359	100.0	45,435	52.0	14,515	16.6	17,436	20.0	2,616	3.0	7,356	8.4
1987 (P)	62,198	100.0	32,514	52.3	11,876	19.1	12,391	19.9	2,340	3.8	3,077	4.9

Source: "Air Carrier Financial Statistics", Table 3 -- RSPA

Note: Wide fluctuations in total revenues and expenses are caused by fluctuations in the number of medium regional carriers. Some have been upgraded to large regional carriers and some have gone out of business. For list of medium regional carriers see "Air Carrier Financial Statistics" for year in question.

TABLE 6.16
SMALL CERTIFICATED AND COMMUTER AIR CARRIERS
1986 and 1987

40-Mile Air	California Seaboard	Golden State Airlines
AAA	Cape Smythe Air Service	Grand Canyon
AAE Western Skyways	Capitol Airline	Grand Canyon Helicopters
Action Airlines	Caribbean Express, Inc.	Great Lakes Aviation, Ltd.
Aerial Transit Company*	Catskill Airways, Inc.	Green Hills Aviation, Ltd.
Aero Coach	Centennial Airlines	Gull Air, Inc.
Aero Virgin Islands Corp.	CCair	Harbor Air Service
Air Cape	Chalks Int'l Airlines, Inc.	Harbor Airlines, Inc.
Air Kentucky Air Lines	Challenge Air Cargo, Inc.*	Havasut Airlines
Air LA	Challenge Air Int'l Inc.*	Helitrans
Air Link Airways	Challenge Air Transport, Inc.*	Henson Aviation, Inc.
Air Midwest, Inc.	Channel Flying, Inc.	Holiday Airlines, Inc.
Air Molokai	Chaparral Airlines, Inc.	Iliamna Air Taxi
Air Nevada Airlines, Inc.	Chautauqua Airlines, Inc.	Iowa Airways
Air New Orleans	Chester County Aviation	Island Air Express
Air Sunshine, Inc.	Chitina Air Service	Jetstream Int'l Airlines
Air-Lift Associates, Inc.	Christman Air System	Kenmore Air Harbor
Airways International	Cityhop	King Flying Service
Alaska Island Air, Inc.	Coastal Air Transport	L.A.B. Flying Service, Inc.
Alliance Airlines	Comair, Inc.	LA Helicopter
Alpha Air	Command Airways, Inc.	Larry's Flying Service
Alpine Air	Crown Airways, Inc.	Las Vegas Airlines
Altus Airlines	Crownair	Long Island Airlines
Ana Ltd.	Cumberland Airlines	Mall Airways, Inc.
Arctic Circle Air Service	Desert Sun Airlines	Manu'a Air Transport, Inc.
Armstrong Air Service	Direct Air, Inc.	Maui Airlines
Atlantic Gulf Airlines*	East Hampton Aire, Inc.	McClair Airlines, Inc.
Atlantic Southeast Airlines	Ellis Air Taxi, Inc.	Mesa Airlines
Atlantis Airlines, Inc.	Empire Airways	Mesaba Aviation
Audi Air, Inc.	ERA Helicopters, Inc.	Metro Express
Avair	Exec Express	Metro Express II
Bader Express	Executive Air Charter	Metroflight Airlines
Baker Aviation, Inc.	Executive Transport	MGM Grand Air*
Bankair, Inc.	Express Airlines I	Michigan Airways, Inc.
Bar Harbor Airways	Fischer Bros. Aviation, Inc.	Kidcontinent Airlines
Barrow Air	Flamenco Airways, Inc.	Midstate Airlines, Inc.
Bas Aviation	Florida West Airlines*	Midwest Aviation
Bellair, Inc.	Ford-Aire, Inc.	MST Aviation
Bemidji Airlines	Freedom Air	New England Airlines, Inc.
Bering Air, Inc.	Friendship Air Alaska	New York Helicopter Corp.
Big Island Air	Frontier Flying Service	Northeastern Int'l Airways
Big Sky Airlines, Inc.	Galena Air Service	NPA Inc.
Brockway Air	GP Express Airlines	Omniflight Helicopters
Business Express Airlines	Golden Pacific Airlines	Otter Air

*Large certificated medium regional air carrier.

TABLE 6.16 (Continued)
SMALL CERTIFICATED AND COMMUTER AIR CARRIERS
1985 and 1986

Pacific Interstate Airlines*	Rosenholm Aviation, Inc.	Temco Airlines
Panorama Air Tours	Ross Aviation, Inc.	Tennessee Airways, Inc.
Peninsula Airways, Inc.	Royal Hawaiian Airways, Inc.	Texas National Airlines
Pennsylvania Airlines	Royale Airlines, Inc.	Trans Air, Inc.*
Pocono Airlines, Inc.	Ryan Air Services, Inc.	Trans-Colorado Airlines
Polar International	SFO Helicopter Airlines, Inc.	Tropical Helicopter Airways
Precision Valley Aviation	San Juan Airlines, Inc.	Valley Airlines
Presidential Express	Scenic Airlines, Inc.	Vieques Air Link, Inc.
Prime Air, Inc.	Simmons Airlines	Village Aviation
Princeville Airways, Inc.	Sky West Aviation, Inc.	Virgin Air, Inc.
Pro Air Services	Skybus, Inc.*	Virgin Islands Seaplane
Propheter Aviation	South Pacific Island Airway*	Walker's International
Provincetown Boston	Southcentral Air, Inc.	West Penn Commuter
Ransome Airlines	Southern Airways	Wheeler Airlines
Reeves Air	Southern Jersey Airways	Wilbur's Inc.
Resort Air, Inc.	States West Airlines	Wings Airways
Resort Airlines, Inc.	Suburban Airlines	Wings West
Resort Commuter	Sunair	Wings of Alaska
Resorts Int'l Airline	Sun Coast Airlines, Inc.	Wrangell Air Service
Rio Airways, Inc.	Tanana Air Service	Wright Air Service
Rocky Mountain Airways, Inc.	Tantonduk Flying Service	Yute Air Alaska, Inc.

*Large certificated medium regional air carrier.

TABLE 6.17

SMALL CERTIFICATED, COMMUTER AND LARGE CERTIFICATED MEDIUM REGIONAL AIR CARRIERS
TRAFFIC DATA
SCHEDULED SERVICES ONLY

1981-1987

Category	1981	1982	1983	1984	1985	1986(R)	1987(P)
Revenue Passenger Miles (000)	2,160,350	2,905,243	2,228,453	4,601,837	3,031,817	3,352,187	3,910,256
Revenue Enplanements (000)	15,642	17,444	15,941	20,230	18,853	20,849	24,086
Passenger Ton Miles (000)	210,026	286,608	222,189	460,135	302,783	335,264	389,259
Cargo Ton Miles (000)	32,812	30,911	7,752	18,291	67,400	49,927	53,966
Aircraft Revenue Miles (000)	254,682	264,176	242,120	304,217	323,945	347,181	382,974
Aircraft Revenue Hours	1,558,025	1,504,406	1,464,879	1,759,848	1,832,623	1,940,095	2,113,753
Aircraft Departures	2,341,469	2,353,081	2,287,504	2,706,142	2,755,616	2,866,653	2,975,052

(R) Revised

(P) Preliminary

Source: "Air Carrier Industry Scheduled Traffic Statistics", RSPA

TABLE 6.18

SMALL CERTIFICATED, COMMUTER AND LARGE CERTIFICATED MEDIUM REGIONAL AIR CARRIERS
TRAFFIC AVERAGES
SCHEDULED SERVICES ONLY

1981-1987

Category	1981	1982	1983	1984	1985	1986(R)	1987(P)
Passengers Per Aircraft Mile	8.5	11.0	9.2	15.1	9.4	9.7	10.2
Available Seats Per Aircraft Mile	18.2	23.7	20.7	30.0	21.3	21.5	22.0
Revenue Tons Per Aircraft Mile	1.0	1.2	1.0	1.6	1.1	1.1	1.2
Available Tons Per Aircraft Mile	2.1	2.8	2.3	3.3	2.7	2.5	2.7
Flight Stage Length (Miles)	108.8	112.3	105.8	112.3	117.6	128.7	121.1

(R) Revised

(P) Preliminary

Source: "Air Carrier Industry Scheduled Traffic Statistics", RSPA

VII. U.S. CIVIL AIRMEN

Statistics pertaining to airmen, both pilot and nonpilot, were obtained from the official airmen certification records maintained by the Airmen Certification and Medical Certification Branches of the Mike Monroney Aeronautical Center at Oklahoma City, Oklahoma.

Active pilots are those pilots who hold a pilot certificate and a valid medical certificate--one that was issued within the last 25 months. Glider and Lighter-than-air pilots may have, but are not required to have, a medical examination. The inventory data for these categories include only those with a valid medical certificate.

For those nonpilot certificates for which a medical certificate is not required (mechanics, parachute riggers, ground instructors, and dispatchers), the numbers shown include all who have been issued that airman certificate.

TABLE 7.1

ESTIMATED ACTIVE PILOT CERTIFICATES HELD: DECEMBER 31, 1978 - 1987

Category	1978	1979	1980 ^{1/}	1981	1982	1983	1984	1985	1986	1987
Pilot—Total	798,833	814,667	827,071	764,182	733,255	718,004	722,376	709,540	709,118	699,653
Student	204,874	210,180	199,833	179,912	156,361	147,197	150,081	146,652	150,273	146,016
Private	337,644	343,276	357,479	328,562	322,094	318,643	320,086	311,086	305,736	300,949
Commercial	185,833	182,097	183,442	166,580	165,093	159,495	155,929	151,632	147,798	143,645
Airline Transport	55,881	63,652	69,569	70,311	73,471	75,938	79,192	82,740	87,186	91,287
Helicopter (only)	4,874	5,218	6,030	6,453	7,034	7,237	7,532	8,123	8,581	8,702
Glider (only) ^{2/}	6,541	6,796	7,039	7,388	7,842	8,157	8,390	8,168	8,411	7,901
Lighter-than-air ^{2/}	3,186	3,448	3,679	2,976	1,360	1,337	1,166	1,139	1,133	1,153
Nonpilot—Total	336,962	351,981	368,356	382,840	399,661	413,199	426,802	395,139	410,079	427,962
Mechanic ^{3/}	228,743	237,611	250,157	262,705	277,436	288,335	298,028	274,100	284,241	297,178
Parachute Rigger ^{3/}	9,200	9,381	9,547	9,716	9,893	10,074	10,194	9,395	9,535	9,659
Ground Instructor ^{3/}	57,738	59,680	61,550	63,246	65,004	66,385	67,463	58,214	59,443	60,861
Dispatcher ^{3/}	6,161	6,446	6,799	7,094	7,580	8,223	8,980	8,511	9,025	9,491
Flight Navigator	2,092	1,994	1,936	1,785	1,695	1,636	1,603	1,542	1,512	1,445
Flight Engineer	33,028	36,869	38,367	38,294	38,053	38,546	40,534	43,377	46,323	49,328
Flight Instructor Certificates ^{4/}	52,201	54,398	60,440	57,523	62,492	62,201	61,173	58,940	57,355	60,316
Instrument Ratings ^{5/}	236,312	247,096	260,461	252,535	255,073	254,271	256,584	258,559	262,386	266,122

^{1/} For 1980 only, a valid medical certificate was defined as one that was issued within the last 27 months.^{2/} Glider and lighter-than-air pilots are not required to have a medical examination; however, the totals above represent pilots who received a medical examination within the last 25 months.^{3/} Numbers represent all certificates on record. No medical examination required.^{4/} Not included in total.^{5/} Special ratings shown on pilot certificates, do not indicate additional certificates.

TABLE 7.2

ESTIMATED ACTIVE WOMEN PILOT CERTIFICATES HELD: DECEMBER 31, 1978 - 1987

Category of Certificates Held	1978	1979	1980 ^{1/}	1981	1982	1983	1984	1985	1986	1987
Pilot--Total	49,874	51,733	52,902	47,721	45,305	43,648	44,339	43,463	43,082	42,578
Student	26,354	26,714	26,006	22,591	19,958	18,696	19,435	19,058	18,899	18,367
Private	19,267	20,275	21,554	19,602	18,388	18,801	18,616	17,974	17,532	17,349
Commercial	3,306	3,618	3,993	4,101	4,257	4,281	4,232	4,185	4,176	4,208
Airline Transport	270	361	480	584	749	884	1,032	1,184	1,334	1,538
Helicopter (only)	17	27	55	87	113	144	167	196	232	247
Glider (only) ^{2/}	433	461	496	540	574	599	631	653	667	627
Lighter-than-air ^{2/}	227	277	318	216	266	243	226	233	242	242
Nonpilot--Total	3,984	4,350	4,779	5,201	5,697	6,151	6,591	6,017	6,502	7,101
Mechanic ^{3/}	600	695	890	1,051	1,298	1,493	1,649	1,775	1,964	2,237
Parachute Rigger ^{3/}	544	553	562	580	593	605	614	412	414	428
Ground Instructor ^{3/}	2,682	2,852	3,015	3,213	3,391	3,554	3,680	2,980	3,087	3,232
Dispatcher ^{3/}	76	105	141	167	199	249	310	394	460	524
Flight Engineer	82	145	171	189	215	248	336	455	577	680
Flight Navigator	0	0	0	1	1	2	2	1	0	0
Flight Instructor ^{4/}	1,458	1,699	2,079	2,165	2,532	2,685	2,736	2,731	2,687	2,909

Note: Instrument ratings not reported.

^{1/} For 1980 only, a valid medical certificate was defined as one that was issued within the last 27 months.^{2/} Glider and lighter-than-air pilots are not required to have a medical examination; however, the totals above represent pilots who received a medical examination within the last 25 months.^{3/} Numbers represent all certificates on record. No medical examination required.^{4/} Not included in total.

TABLE 7.3

ESTIMATED ACTIVE PILOT AND NONPILOT CERTIFICATES HELD, BY CLASS OF CERTIFICATES AND BY FAA REGION:
DECEMBER 31, 1987

Class of Certificate	Total 1/	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western-Pacific	Outside U.S. 2/
Total—All Pilots	699,653	10,685	35,584	91,723	116,254	34,175	65,664	116,661	85,537	124,484	18,886
Student Pilots—Total	146,016	1,993	6,312	21,912	24,838	8,565	13,138	24,634	16,719	24,720	3,185
Private Pilots—Total	300,949	5,013	18,187	37,768	56,665	14,413	28,745	45,591	36,131	55,220	3,216
Private Airplane (only)	290,694	4,870	17,779	36,205	55,306	13,954	27,702	43,797	34,946	53,124	3,005
Private Airplane, Private Glider	4,105	34	148	710	636	189	374	625	391	953	45
Private Airplane, Commercial Glider	795	4	26	153	113	60	101	82	71	181	4
Private Airplane, Private Gyroplane	29	0	2	4	7	1	0	2	7	6	0
Private Airplane, Private Helicopter	1,316	16	60	154	165	78	152	214	180	260	37
Private Airplane, Private Glider, Private Helicopter	55	0	1	8	9	5	4	8	6	12	2
Private Airplane, Commercial Helicopter	3,904	88	171	522	424	126	399	850	527	675	122
Private Airplane, Private Glider, Commercial Helicopter	37	0	0	5	1	0	12	8	3	7	1
Private Airplane, Commercial Glider, Commercial Helicopter	12	1	0	3	0	0	1	5	0	2	0
Private Airplane, Commercial Gyroplane, Commercial Helicopter	2	0	0	0	2	0	0	0	0	0	0
Commercial Pilots—Total	143,645	2,586	7,311	17,857	21,219	5,885	13,225	25,634	18,958	25,253	5,716
Commercial Airplane (only)	121,934	2,237	6,405	14,806	18,853	5,034	11,018	20,998	16,105	21,078	5,395
Commercial Airplane, Private Glider	2,070	22	90	321	268	77	236	333	225	478	20
Commercial Airplane, Commercial Glider	3,777	25	146	585	515	207	442	602	420	803	32
Commercial Airplane, Commercial Gyroplane, Commercial Glider	1	0	0	0	0	0	0	0	0	1	0

TABLE 7.3 (Continued)

ESTIMATED ACTIVE PILOT AND NONPILOT CERTIFICATES HELD, BY CLASS OF CERTIFICATES AND BY FAA REGION:
DECEMBER 31, 1987

Class of Certificate	Total 1/	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western-Pacific	Outside U.S. 2/
Commercial Airplane, Private Helicopter	274	6	11	39	51	9	26	43	33	48	8
Commercial Airplane, Commercial Glider, Private Helicopter	18	0	0	4	4	1	0	1	1	6	1
Commercial Airplane, Commercial Helicopter	14,778	284	635	1,982	1,432	517	1,416	3,521	2,094	2,646	249
Commercial Airplane, Private Glider, Commercial Helicopter	152	0	3	23	25	6	13	32	13	33	4
Commercial Airplane, Commercial Glider, Commercial Helicopter	587	11	20	93	60	28	65	95	61	147	7
Commercial Airplane, Commercial Helicopter, Commercial Gyroplane	20	1	1	2	5	0	3	4	1	3	0
Commercial Airplane, Commercial Gyroplane	24	0	1	1	4	1	5	4	4	4	0
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter, Commercial Glider	10	0	0	1	1	2	0	1	1	4	0
Airline Transport Pilots—Total	<u>91,287</u>	<u>962</u>	<u>3,226</u>	<u>11,165</u>	<u>11,560</u>	<u>4,402</u>	<u>8,696</u>	<u>17,764</u>	<u>11,800</u>	<u>15,445</u>	<u>6,265</u>
Airline Transport Airplane (only)	89,694	927	3,192	10,890	11,421	4,297	8,569	17,461	11,526	15,192	6,219
Airline Transport Airplane, Airline Transport Helicopter	1,593	35	34	275	139	105	129	303	274	253	46
Rotorcraft (only) Pilots—Total	<u>8,702</u>	<u>107</u>	<u>365</u>	<u>1,293</u>	<u>772</u>	<u>419</u>	<u>661</u>	<u>2,271</u>	<u>1,211</u>	<u>1,242</u>	<u>361</u>
Private Gyroplane	10	0	0	0	1	1	2	2	1	2	1
Private Helicopter	1,019	6	33	136	96	130	103	96	94	263	62
Commercial Helicopter	7,228	90	325	1,109	649	273	528	2,163	997	932	222
Commercial Helicopter, Private Glider	5	0	0	2	0	1	0	2	0	0	0
Commercial Helicopter, Commercial Glider	5	0	2	0	1	0	0	0	0	2	0
Commercial Gyroplane	1	0	1	0	0	0	0	0	0	0	0

TABLE 7.3 (Continued)

ESTIMATED ACTIVE PILOT AND NONPILOT CERTIFICATES HELD, BY CLASS OF CERTIFICATES AND BY FAA REGION:
DECEMBER 31, 1967

Class of Certificate	Total 1/	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western-Pacific	Outside U.S. 2/
Commercial Helicopter, Commercial Gyroplane	1	0	0	0	0	0	0	0	1	0	0
Airline Transport Helicopter	433	11	4	46	25	14	28	68	118	43	76
Glider (only)—Total	<u>7,901</u>	<u>16</u>	<u>116</u>	<u>1,562</u>	<u>981</u>	<u>438</u>	<u>1,071</u>	<u>624</u>	<u>546</u>	<u>2,411</u>	<u>134</u>
Private Glider	6,734	13	103	1,317	849	359	830	551	463	2,132	117
Commercial Glider	1,167	3	13	245	132	79	241	73	85	279	17
Lighter-Than-Air	<u>1,153</u>	<u>8</u>	<u>66</u>	<u>166</u>	<u>219</u>	<u>53</u>	<u>126</u>	<u>143</u>	<u>170</u>	<u>193</u>	<u>9</u>
Total—All Nonpilot	<u>427,962</u>	<u>4,427</u>	<u>21,403</u>	<u>61,836</u>	<u>55,820</u>	<u>16,652</u>	<u>35,766</u>	<u>72,847</u>	<u>55,489</u>	<u>81,819</u>	<u>19,883</u>
Mechanic 3/	297,178	3,107	16,667	44,337	38,060	12,782	22,802	48,420	39,362	58,278	13,423
Parachute Rigger 3/	9,659	149	420	1,638	1,219	344	1,299	1,849	978	1,602	161
Ground Instructor 3/	60,861	717	3,047	8,426	9,635	2,680	5,490	10,290	8,130	10,956	1,490
Dispatcher 3/	9,491	142	145	1,931	879	244	471	1,688	662	1,421	1,908
Flight Navigator	1,445	4	11	232	47	163	147	241	87	418	101
Flight Engineer	49,328	308	1,173	5,272	5,986	2,439	5,577	10,359	6,270	9,144	2,800
Flight Instructor Certificates—Total 4/	<u>60,316</u>	<u>796</u>	<u>3,100</u>	<u>8,595</u>	<u>10,331</u>	<u>2,768</u>	<u>5,980</u>	<u>10,097</u>	<u>7,667</u>	<u>10,087</u>	<u>893</u>
Instrument Ratings 5/	<u>266,122</u>	<u>3,489</u>	<u>12,145</u>	<u>34,659</u>	<u>39,753</u>	<u>12,019</u>	<u>23,677</u>	<u>49,879</u>	<u>34,035</u>	<u>46,138</u>	<u>10,328</u>

1/ Includes Outside U.S. total.

2/ Outside U.S. includes airmen certificated by the FAA who live outside the 50 states or foreign countries.

3/ Total ratings issued to date. These ratings retain their validity without periodic medical examinations.

4/ Not included in total.

5/ Special ratings shown on pilot certificates, do not indicate additional ratings.

TABLE 7.4

ESTIMATED ACTIVE PILOTS AND FLIGHT INSTRUCTORS BY FAA REGION AND STATE:
DECEMBER 31, 1987

FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellaneous ^{2/}	Flight Instructor ^{3/}
Total ^{1/}	<u>699,653</u>	<u>146,016</u>	<u>300,949</u>	<u>143,645</u>	<u>91,287</u>	<u>17,756</u>	<u>60,316</u>
United States—Total	<u>680,767</u>	<u>142,831</u>	<u>297,733</u>	<u>137,929</u>	<u>85,022</u>	<u>17,252</u>	<u>59,423</u>
Alaskan Region—Total	<u>10,685</u>	<u>1,993</u>	<u>5,013</u>	<u>2,586</u>	<u>962</u>	<u>131</u>	<u>798</u>
Central—Total	<u>35,584</u>	<u>6,312</u>	<u>18,187</u>	<u>7,312</u>	<u>3,226</u>	<u>547</u>	<u>3,100</u>
Iowa	7,619	1,371	4,323	1,414	423	88	634
Kansas	9,799	1,491	5,124	2,135	905	164	871
Missouri	12,781	2,492	5,973	2,490	1,580	266	1,196
Nebraska	5,385	958	2,767	1,273	318	69	399
Eastern—Total	<u>91,723</u>	<u>21,912</u>	<u>37,766</u>	<u>17,857</u>	<u>11,165</u>	<u>3,021</u>	<u>8,595</u>
Delaware	1,643	353	674	354	232	30	190
District of Columbia	666	156	281	137	55	37	51
Maryland	10,037	2,266	4,417	1,948	1,108	298	896
New Jersey	14,921	3,507	5,966	2,684	2,279	485	1,411
New York	25,688	6,596	10,866	4,854	2,284	1,086	2,293
Pennsylvania	20,861	5,124	8,938	3,616	2,596	585	2,130
Virginia	15,374	3,241	5,430	3,825	2,432	446	1,405
West Virginia	2,533	669	1,196	437	179	52	219
Great Lakes—Total	<u>116,254</u>	<u>24,838</u>	<u>56,665</u>	<u>21,219</u>	<u>11,560</u>	<u>1,972</u>	<u>10,331</u>
Illinois	27,229	6,036	12,411	4,788	3,528	466	2,522
Indiana	12,479	2,766	6,237	2,327	960	189	1,145
Michigan	20,348	4,510	10,172	3,500	1,689	477	1,751
Minnesota	16,188	3,095	7,810	2,910	2,199	174	1,344
North Dakota	3,293	692	1,597	888	93	23	255
Ohio	22,565	4,940	11,029	4,170	1,947	479	2,154
South Dakota	2,582	448	1,308	622	167	37	207
Wisconsin	11,570	2,351	6,101	2,014	977	127	953
New England—Total	<u>34,175</u>	<u>8,565</u>	<u>14,413</u>	<u>5,685</u>	<u>4,402</u>	<u>910</u>	<u>2,768</u>
Connecticut	9,204	2,133	3,511	1,579	1,747	234	750
Maine	3,917	909	1,816	809	337	46	294
Massachusetts	12,813	3,537	5,745	2,040	1,098	393	1,021
New Hampshire	4,729	1,100	1,754	853	889	133	419
Rhode Island	1,671	422	762	291	150	46	123
Vermont	1,841	464	825	313	181	56	161

TABLE 7.4 (continued)

ESTIMATED ACTIVE PILOTS AND FLIGHT INSTRUCTORS BY FAA REGION AND STATE:
DECEMBER 31, 1987

FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellaneous ^{2/}	Flight Instructor ^{3/}
Northwest Mountain—Total	65,664	13,138	28,745	13,225	6,696	1,658	5,980
Colorado	18,202	4,262	6,622	3,417	3,100	801	1,904
Idaho	4,150	660	2,076	983	355	76	366
Montana	4,063	687	2,101	934	296	45	371
Oregon	9,801	1,758	5,215	1,989	622	217	802
Utah	5,610	1,252	2,513	982	703	160	457
Washington	21,686	4,114	9,069	4,504	3,469	570	1,906
Wyoming	2,152	405	1,149	416	153	29	174
Southern—Total	116,661	24,634	45,591	25,634	17,764	3,038	10,097
Alabama	9,271	1,824	3,539	2,360	659	889	955
Florida	45,095	8,883	17,691	10,445	7,311	765	3,871
Georgia	18,047	3,620	6,361	3,751	4,006	300	1,422
Kentucky	5,848	1,412	2,561	1,007	695	173	518
Mississippi	4,789	1,031	1,900	1,425	348	85	363
North Carolina	14,784	3,573	6,032	2,855	1,910	414	1,199
South Carolina	6,916	1,634	2,833	1,613	690	146	597
Tennessee	11,911	2,657	4,674	2,178	2,145	257	1,172
Southwest—Total	85,537	16,719	36,131	18,958	11,800	1,925	7,667
Arkansas	6,266	1,370	2,817	1,584	413	82	529
Louisiana	8,694	1,699	3,501	2,323	876	295	777
New Mexico	5,233	1,139	2,276	1,162	447	209	429
Oklahoma	12,004	2,508	5,927	2,504	882	183	957
Texas	53,340	10,003	21,610	11,385	9,182	1,160	4,975
Western-Pacific—Total	124,484	24,720	55,220	25,253	15,445	3,846	10,087
Arizona	15,445	3,194	6,661	3,209	1,849	532	1,408
California	100,102	19,662	45,541	20,043	11,916	2,940	7,870
Hawaii	3,373	842	834	803	664	230	271
Nevada	5,564	1,022	2,184	1,198	1,016	144	538
Outside U.S.—Total ^{4/}	18,686	3,185	3,216	5,716	6,265	504	893
Other U.S. Areas	1,935	581	648	336	331	39	0
American Samoa	10	1	2	1	6	0	0
Canal Zone	2	1	0	1	0	0	0
Guam	102	20	22	19	40	1	0
Puerto Rico	1,493	495	506	236	223	33	0
Virgin Island	325	63	118	78	61	5	0
Wake Island	3	1	0	1	1	0	0

^{1/} Includes Outside U.S.^{2/} Includes helicopter, glider, and lighter-than-air.^{3/} Not included in total.^{4/} Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

TABLE 7.5

ESTIMATED ACTIVE WOMEN PILOTS AND FLIGHT INSTRUCTORS BY FAA REGION AND STATE:
DECEMBER 31, 1987

FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellaneous ^{2/}	Flight Instructor ^{3/}
Total ^{1/}	<u>42,578</u>	<u>18,367</u>	<u>17,349</u>	<u>4,208</u>	<u>1,538</u>	<u>1,116</u>	<u>2,909</u>
United States—Total	<u>42,063</u>	<u>18,144</u>	<u>17,195</u>	<u>4,119</u>	<u>1,510</u>	<u>1,095</u>	<u>2,869</u>
Alaskan Region—Total	<u>663</u>	<u>365</u>	<u>400</u>	<u>78</u>	<u>14</u>	<u>6</u>	<u>37</u>
Central - Total	<u>1,906</u>	<u>777</u>	<u>880</u>	<u>167</u>	<u>50</u>	<u>32</u>	<u>112</u>
Iowa	378	149	184	35	7	3	20
Kansas	554	206	275	49	14	10	34
Missouri	710	315	298	61	24	12	43
Nebraska	264	107	123	22	5	7	15
Eastern—Total	<u>5,796</u>	<u>2,621</u>	<u>2,168</u>	<u>610</u>	<u>186</u>	<u>211</u>	<u>428</u>
Delaware	93	46	31	9	6	1	7
District of Columbia	75	29	35	6	4	1	4
Maryland	719	291	302	76	29	21	48
New Jersey	897	394	333	101	31	38	66
New York	1,570	709	572	169	40	80	125
Pennsylvania	1,391	651	514	146	38	42	99
Virginia	933	433	340	97	37	26	76
West Virginia	118	68	41	6	1	2	3
Great Lakes—Total	<u>6,848</u>	<u>2,882</u>	<u>2,888</u>	<u>719</u>	<u>235</u>	<u>124</u>	<u>514</u>
Illinois	1,670	693	718	167	70	22	123
Indiana	677	288	274	81	22	12	53
Michigan	1,201	520	481	123	35	42	94
Minnesota	913	361	399	98	43	12	65
North Dakota	177	66	77	33	0	1	14
Ohio	1,446	647	577	145	46	31	110
South Dakota	115	51	50	9	4	1	6
Wisconsin	649	256	312	63	15	3	49
New England—Total	<u>2,392</u>	<u>1,116</u>	<u>910</u>	<u>204</u>	<u>92</u>	<u>70</u>	<u>162</u>
Connecticut	596	275	210	53	38	20	41
Maine	224	106	94	15	8	1	16
Massachusetts	969	474	366	80	24	25	55
New Hampshire	345	158	117	39	16	15	31
Rhode Island	127	48	66	8	2	3	8
Vermont	131	55	57	9	4	6	11

TABLE 7.5 (continued)

ESTIMATED ACTIVE WOMEN PILOTS AND FLIGHT INSTRUCTORS BY FAA REGION AND STATE:
DECEMBER 31, 1987

FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellaneous ^{2/}	Flight Instructor ^{3/}
Northwest Mountain—Total	<u>4,464</u>	<u>1,910</u>	<u>1,841</u>	<u>429</u>	<u>154</u>	<u>130</u>	<u>303</u>
Colorado	1,329	627	448	133	57	64	111
Idaho	257	98	122	28	5	4	18
Montana	205	88	96	18	3	0	15
Oregon	722	277	353	60	14	18	38
Utah	287	135	108	19	14	11	15
Washington	1,531	628	651	159	60	33	102
Wyoming	133	57	63	12	1	0	4
Southern—Total	<u>6,249</u>	<u>2,905</u>	<u>2,299</u>	<u>609</u>	<u>298</u>	<u>138</u>	<u>416</u>
Alabama	378	167	158	21	8	24	20
Florida	2,707	1,189	1,056	302	111	49	192
Georgia	861	430	304	68	47	12	46
Kentucky	317	158	108	27	20	4	25
Mississippi	215	102	83	22	5	3	12
North Carolina	770	369	266	70	43	22	56
South Carolina	349	183	111	35	12	8	28
Tennessee	652	307	213	64	52	16	39
Southwest—Total	<u>4,689</u>	<u>2,075</u>	<u>1,925</u>	<u>417</u>	<u>156</u>	<u>116</u>	<u>302</u>
Arkansas	304	158	112	31	3	0	22
Louisiana	377	177	137	44	10	9	34
New Mexico	415	177	154	32	14	38	25
Oklahoma	724	314	319	62	21	8	51
Texas	2,869	1,249	1,203	246	108	61	170
Western-Pacific—Total	<u>8,856</u>	<u>3,493</u>	<u>3,884</u>	<u>886</u>	<u>325</u>	<u>268</u>	<u>593</u>
Arizona	1,151	443	503	117	40	48	71
California	7,088	2,778	3,158	702	255	195	477
Hawaii	245	112	70	29	18	16	19
Nevada	372	160	153	38	12	9	26
Outside U.S.—Total ^{4/}	<u>515</u>	<u>223</u>	<u>154</u>	<u>89</u>	<u>28</u>	<u>21</u>	<u>40</u>
Other U.S. Areas	<u>69</u>	<u>35</u>	<u>19</u>	<u>7</u>	<u>5</u>	<u>3</u>	<u>0</u>
Guam	7	5	1	1	0	0	0
Puerto Rico	39	22	9	3	3	2	0
Virgin Island	23	8	9	3	2	1	0

^{1/} Includes Outside U.S.^{2/} Includes helicopter, glider, and lighter-than-air.^{3/} Not included in total.^{4/} Other U.S. Areas are included in Outside U.S. Total.

TABLE 7.6

ESTIMATED ACTIVE HELICOPTER PILOTS BY CLASS OF CERTIFICATES
DECEMBER 31, 1987

Class of Certificates	Number of Certificates Held
Total	<u>31,513</u>
Private Helicopter	1,019
Private Gyroplane, Private Airplane	29
Private Helicopter, Private Airplane	1,316
Private Helicopter, Private Airplane, Private Glider	55
Private Airplane, Commercial Gyroplane, Commercial Helicopter	2
Private Airplane, Private Glider, Commercial Helicopter	37
Private Gyroplane	10
Private Airplane, Commercial Glider, Commercial Helicopter	12
Commercial Helicopter	7,226
Commercial Helicopter, Private Airplane	3,904
Commercial Airplane, Commercial Helicopter	14,778
Commercial Airplane, Private Helicopter	274
Commercial Airplane, Private Glider, Commercial Helicopter	152
Commercial Airplane, Commercial Glider, Commercial Helicopter	587
Commercial Helicopter, Private Glider	5
Commercial Helicopter, Commercial Glider	5
Commercial Gyroplane, Commercial Airplane	24
Commercial Airplane, Commercial Gyroplane, Commercial Glider	1
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter	20
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter Commercial Glider	10
Commercial Helicopter, Commercial Gyroplane	1
Commercial Airplane, Commercial Glider, Private Helicopter	16
Airline Transport Helicopter	433
Airline Transport Airplane, Airline Transport Helicopter	1,593

TABLE 7.7
ESTIMATED ACTIVE GLIDER PILOTS BY CLASS OF CERTIFICATES
DECEMBER 31, 1987

Class of Certificates	Number of Certificates Held
Total	<u>19,530</u>
Private Glider	6,734
Private Airplane, Private Glider	4,105
Private Airplane, Commercial Glider	795
Private Airplane, Private Glider, Private Helicopter	55
Private Airplane, Private Glider, Commercial Helicopter	37
Private Airplane, Commercial Glider, Commercial Helicopter	12
Private Glider, Commercial Airplane	2,070
Private Glider, Commercial Airplane, Commercial Helicopter	152
Private Glider, Commercial Helicopter	5
Commercial Glider	1,167
Commercial Airplane, Commercial Glider	3,777
Commercial Airplane, Commercial Glider, Private Helicopter	18
Commercial Airplane, Commercial Glider, Commercial Helicopter	587
Commercial Helicopter, Commercial Glider	5
Commercial Airplane, Commercial Gyroplane, Commercial Glider, Commercial helicopter	10
Commercial Airplane, Commercial Gyroplane, Commercial Glider	1

TABLE 7.8

ESTIMATED ACTIVE HELICOPTER AND GLIDER PILOTS
DECEMBER 31, 1983-87

Calendar Year	Total Helicopter Pilots ^{1/}		Total Glider Pilots ^{2/}	
	Number	Percent Change	Number	Percent Change
1987	31,513	-1	19,530	-6
1986	31,697	+2	20,355	
1985	31,206	+2	20,308	-2
1984	30,507	+1	20,733	+2
1983	30,090	+1	20,395	+3

^{1/} Includes pilots with ratings to fly helicopters only.

^{2/} Includes pilots with ratings to fly gliders only.

TABLE 7.9

ESTIMATED TOTAL PILOTS AND INSTRUMENT RATED PILOTS
DECEMBER 31, 1983-87

Calendar Year	Total Pilots ^{1/}	Instrument Rated Pilots	
		Number	Percent of Total
1987	553,637	266,122	48
1986	558,845	262,388	47
1985	562,888	258,559	46
1984	572,295	256,584	45
1983	570,807	254,271	45

^{1/} Excludes student pilots.

TABLE 7.10
ESTIMATED ACTIVE PILOT CERTIFICATES HELD
BY CATEGORY AND AGE GROUP OF HOLDER
1987, 1986, 1983

Type of Pilot Certificates															
Age Group	Total Active Pilots			Student			Private			Commercial			Airline Transport		
	1987	1986	1983	1987	1986	1983	1987	1986	1983	1987	1986	1983	1987	1986	1983
Total	699,653	709,118	718,004	146,016	150,273	147,197	300,949	305,736	318,643	143,645	147,798	159,495	91,287	87,186	75,938
14-15	264	252	280	264	252	280	0	0	0	0	0	0	0	0	0
16-19	19,752	18,135	19,595	15,542	14,652	14,188	3,854	3,222	4,959	215	114	267	0	0	0
20-24	56,575	58,029	70,679	26,443	27,477	29,759	20,522	21,096	28,039	7,791	7,600	10,806	453	413	622
25-29	86,336	89,246	97,060	27,617	28,885	29,019	32,056	33,569	40,229	16,999	17,226	18,640	6,436	6,306	6,036
30-34	99,311	102,263	104,166	23,762	25,086	24,195	42,746	44,654	46,459	16,497	16,769	16,585	13,117	12,438	11,577
35-39	99,686	105,580	107,927	18,413	19,531	18,089	44,903	46,367	45,670	17,514	20,169	26,219	15,614	15,933	14,628
40-44	97,082	96,586	89,756	13,437	13,606	11,857	41,570	41,428	39,859	22,637	23,661	23,913	16,792	15,437	12,494
45-49	75,194	73,040	71,234	8,251	8,234	7,819	33,189	32,152	32,483	18,146	18,000	18,664	14,342	13,409	11,221
50-54	57,844	59,077	61,035	5,214	5,438	5,718	26,151	27,064	30,941	14,349	14,947	15,065	11,335	10,819	8,479
55-59	47,529	48,211	46,738	3,621	3,685	3,541	24,862	26,539	26,481	11,140	10,816	10,825	7,184	6,398	5,175
60 and over	60,080	58,699	49,534	3,452	3,427	2,732	31,094	29,645	23,523	16,357	16,496	16,451	6,014	6,031	5,704

Type of Pilot Certificates												
Age Group	Helicopter (Only)			Glider (Only) ^{1/}			Lighter-than-air ^{1/}			Flight Instructor ^{2/}		
	1987	1986	1983	1987	1986	1983	1987	1986	1983	1987	1986	1983
Total	8,702	8,581	7,237	7,901	8,411	8,157	1,153	1,133	1,337	60,316	57,355	62,201
14-15	0	0	0	0	0	0	0	0	0	0	0	0
16-19	10	23	11	118	105	152	13	18	18	91	48	108
20-24	891	889	811	428	518	551	47	37	91	4,349	4,033	5,533
25-29	2,416	2,379	1,891	678	741	1,043	132	138	200	7,927	7,700	9,511
30-34	1,709	1,672	1,633	1,237	1,397	1,373	243	247	344	8,518	8,301	9,612
35-39	1,575	1,779	1,732	1,363	1,495	1,260	304	306	329	8,734	8,978	10,642
40-44	1,322	1,116	648	1,112	1,137	833	212	199	152	5,343	6,633	8,081
45-49	441	418	296	732	737	647	93	90	84	6,895	6,275	6,221
50-54	198	173	125	549	582	632	48	54	75	5,195	4,964	4,831
55-59	86	81	63	596	665	632	40	27	21	3,968	3,469	3,272
60 and over	54	49	27	1,086	1,034	1,034	21	17	23	5,296	4,934	4,390

^{1/} Glider and lighter-than-air pilots are not required to have a medical examination; however, totals above represent pilots who received a medical examination.

^{2/} Not included in total active pilots.

TABLE 7.11
AVERAGE AGE OF ACTIVE PILOTS BY CATEGORY
DECEMBER 31, 1978 - 1987

YEAR	TOTAL ^{1/}	STUDENT	PRIVATE	COMMERCIAL	AIRLINE TRANSPORT
1978	37.1	30.5	38.6	39.9	42.6
1979	37.2	30.5	38.7	40.2	42.1
1980	37.5	30.5	39.0	40.4	41.9
1981	37.8	30.7	39.3	40.7	42.0
1982	38.3	31.2	39.5	41.0	42.3
1983	38.8	31.7	40.0	41.5	42.5
1984	39.2	32.1	40.4	42.0	42.7
1985	39.5	32.4	40.8	42.4	42.8
1986	39.7	32.2	41.1	42.6	43.0
1987	39.9	32.3	41.4	42.7	43.1

^{1/} Includes helicopter (only), glider (only) and lighter than air (only) pilots not shown separately.

TABLE 7.12

ESTIMATED INSTRUMENT RATING HELD BY CLASS OF CERTIFICATES

DECEMBER 31, 1987 AND 1986

Class of Certificates	1987	1986	Percent Change 1987-1986
Total—all groups	<u>266,122</u>	<u>262,368</u>	<u>1</u>
Private Pilots—Total	<u>47,746</u>	<u>45,672</u>	<u>5</u>
Private Airplane (only)	<u>43,885</u>	<u>41,947</u>	<u>5</u>
Private Airplane, Private Glider	983	955	3
Private Airplane, Commercial Glider	102	95	7
Private Airplane, Private Helicopter	332	318	4
Private Airplane, Private Glider, Private Helicopter	25	20	-25
Private Airplane, Commercial Helicopter	2,385	2,302	4
Private Airplane, Private Gyroplane	3	2	50
Private Airplane, Private Glider, Commercial Helicopter	21	20	5
Private Airplane, Commercial Glider, Commercial Helicopter	9	12	25
Private Airplane, Other	1	1	0
Commercial Pilots—Total	<u>121,072</u>	<u>123,559</u>	<u>-2</u>
Commercial Airplane (only)	102,017	103,913	-2
Commercial Airplane, Private Glider	1,756	1,825	-4
Commercial Airplane, Commercial Glider	3,098	3,227	-4
Commercial Airplane, Private Helicopter	234	224	4
Commercial Airplane, Commercial Helicopter	13,250	13,624	-3
Commercial Airplane, Private Glider, Commercial Helicopter	134	143	-6
Commercial Airplane, Commercial Glider, Commercial Helicopter	526	549	-4
Commercial Airplane, Commercial Gyroplane	15	13	15
Commercial Airplane, Commercial Helicopter, Commercial Gyroplane	15	16	-6
Commercial Airplane, Commercial Gyroplane, Commercial Glider	1	1	0
Commercial Airplane, Commercial Glider, Private Helicopter	16	15	7
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter			
Commercial Glider	10	9	11
Airline Transport Pilots—Total	<u>91,287</u>	<u>87,186</u>	<u>5</u>
Airline Transport Airplane	89,694	85,714	5
Airline Transport Airplane, Airline Transport Helicopter	1,593	1,472	8
Rotorcraft Pilots—Total	<u>6,017</u>	<u>5,971</u>	<u>1</u>
Commercial Helicopter	5,927	5,873	1
Airline Transport Helicopter	81	89	9
Rotorcraft Other	9	9	0

TABLE 7.13

ESTIMATED INSTRUMENT RATINGS HELD, BY CLASS OF CERTIFICATES, BY FAA REGION: DECEMBER 31, 1987

Class of Certificate	Total 1/	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western Pacific	Outside U.S.2/
Total—all groups	266,122	3,489	12,145	34,659	39,753	12,019	23,677	49,879	34,035	46,138	10,328
Private Pilots—Total	47,746	336	2,607	6,710	9,348	2,330	3,599	7,996	5,591	8,929	298
Private Airplane (only)	43,885	279	2,425	6,126	8,876	2,164	3,276	7,109	5,086	8,269	275
Private Airplane, Private Glider	983	6	32	172	159	60	61	153	91	240	9
Private Airplane, Commercial Glider	102	0	3	18	13	14	13	8	10	23	0
Private Airplane, Private Helicopter	332	1	17	43	44	13	30	64	52	67	1
Private Airplane, Private Glider											
Private Helicopter	25	0	0	5	3	2	3	2	3	7	0
Private Airplane, Commercial Helicopter											
Private Airplane, Commercial Helicopter	2,385	49	129	342	250	77	208	652	346	319	13
Private Airplane, Private Gyroplane	3	0	1	0	1	0	0	0	0	1	0
Private Airplane, Private Glider											
Commercial Helicopter	21	0	0	2	1	0	7	6	3	2	0
Private Airplane, Commercial Glider											
Commercial Helicopter	9	1	0	2	0	0	1	4	0	1	0
Private Airplane, Other	1	0	0	0	1	0	0	0	0	0	0
Commercial Pilots—Total	121,072	2,109	6,025	15,829	18,281	5,075	10,947	22,223	15,806	21,081	3,696
Commercial Airplane (only)	102,017	1,813	5,223	13,075	16,204	4,312	9,098	16,039	13,326	17,503	3,424
Commercial Airplane, Private Glider	1,756	19	74	270	234	69	169	288	186	409	16
Commercial Airplane, Commercial Glider	3,098	20	126	472	436	178	367	486	342	645	26
Commercial Airplane, Private Helicopter	234	3	10	33	46	8	20	39	28	39	8
Commercial Airplane, Commercial Helicopter											
Commercial Airplane, Private Glider	13,250	243	569	1,868	1,273	474	1,198	3,254	1,854	2,309	208
Commercial Helicopter											
Commercial Airplane, Commercial Glider	134	0	3	22	21	6	12	28	10	28	4
Commercial Helicopter	526	10	19	84	54	26	55	86	55	130	7

TABLE 7.13 (Continued)
ESTIMATED INSTRUMENT RATINGS HELD, BY CLASS OF CERTIFICATES, BY FAA REGION: DECEMBER 31, 1987

Class of Certificate	1/ Total	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western Pacific	Outside U.S. 2/
Commercial Airplane, Commercial Gyroplane	15	0	0	1	2	1	4	1	2	4	0
Commercial Airplane, Commercial Helicopter, Commercial Gyroplane	15	1	1	0	5	0	3	1	1	3	0
Commercial Airplane, Commercial Gyroplane, Commercial Glider	1	0	0	0	0	0	0	0	0	1	0
Commercial Airplane, Commercial Glider, Private Helicopter	16	0	0	3	4	1	0	0	1	6	1
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter, Commercial Glider	10	0	0	1	2	0	1	1	1	4	0
Airline Transport Pilots—Total	91,287	962	3,226	11,165	11,560	4,402	8,698	17,764	11,800	15,445	6,265
Airline Transport Airplane	89,694	927	3,192	10,890	11,421	4,297	8,569	17,461	11,526	15,192	6,219
Airline Transport Airplane, Airline Transport Helicopter	1,593	35	34	275	139	105	129	303	274	253	46
Rotorcraft Pilots—Total	6,017	82	287	955	564	212	433	1,894	838	683	69
Commercial Helicopter	5,927	80	284	945	552	207	429	1,877	816	674	63
Airline Transport Helicopter	81	2	1	9	12	4	4	15	21	7	6
Other	9	0	2	1	0	1	0	2	1	2	0

1/ Includes (outside U.S. total.

2/ (outside U.S. includes airmen certificated by FAA who live outside the 50 states or foreign countries.

TABLE 7.14

ESTIMATED ACTIVE NONPILOT AIRMEN CERTIFICATES HELD, BY FAA REGION AND STATE:
DECEMBER 31, 1987 ^{1/}

FAA Region and State	Total Nonpilot Airmen	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Navigator	Flight Engineer
Total ^{2/}	<u>427,962</u>	<u>297,178</u>	<u>9,659</u>	<u>60,861</u>	<u>9,491</u>	<u>1,445</u>	<u>49,328</u>
United States—Total	<u>408,079</u>	<u>283,755</u>	<u>9,498</u>	<u>59,371</u>	<u>7,583</u>	<u>1,344</u>	<u>46,528</u>
Alaskan Region—Total	<u>4,427</u>	<u>3,107</u>	<u>149</u>	<u>717</u>	<u>142</u>	<u>4</u>	<u>306</u>
Central—Total	<u>21,403</u>	<u>16,607</u>	<u>420</u>	<u>3,047</u>	<u>145</u>	<u>11</u>	<u>1,173</u>
Iowa	<u>2,664</u>	<u>1,981</u>	<u>85</u>	<u>517</u>	<u>9</u>	<u>0</u>	<u>92</u>
Kansas	5,993	4,630	108	907	38	3	307
Missouri	10,937	8,697	160	1,288	95	3	694
Nebraska	1,789	1,299	67	335	3	5	80
Eastern—Total	<u>61,836</u>	<u>44,337</u>	<u>1,638</u>	<u>8,426</u>	<u>1,931</u>	<u>232</u>	<u>5,272</u>
Delaware	1,029	739	26	146	12	5	101
District of Columbia	338	201	19	82	17	0	19
Maryland	3,959	2,449	138	779	51	14	528
New Jersey	11,015	7,554	236	1,352	394	66	1,413
New York	24,099	18,923	388	2,598	1,077	70	1,043
Pennsylvania	14,096	10,425	362	1,991	236	45	1,037
Virginia	6,370	3,423	422	1,267	140	32	1,086
West Virginia	930	623	47	211	4	0	45
Great Lakes—Total	<u>55,820</u>	<u>38,060</u>	<u>1,219</u>	<u>9,635</u>	<u>879</u>	<u>41</u>	<u>5,986</u>
Illinois	15,558	10,099	281	2,491	304	13	2,370
Indiana	5,451	3,887	188	941	56	5	374
Michigan	9,046	6,339	181	1,818	92	7	609
Minnesota	9,585	6,401	137	1,224	278	4	1,541
North Dakota	852	650	25	142	2	0	33
Ohio	10,268	7,309	258	1,967	97	5	632
South Dakota	886	617	21	196	3	1	48
Wisconsin	4,174	2,758	128	856	47	6	379
New England—Total	<u>18,652</u>	<u>12,782</u>	<u>344</u>	<u>2,680</u>	<u>244</u>	<u>163</u>	<u>2,439</u>
Connecticut	5,645	3,604	81	759	76	109	1,016
Maine	1,328	869	41	242	28	8	140
Massachusetts	8,296	6,464	163	1,046	87	14	522
New Hampshire	1,970	918	31	353	29	24	615
Rhode Island	799	547	18	151	9	2	72
Vermont	614	380	10	129	15	6	74
Northwest-Mountain—Total	<u>35,786</u>	<u>22,802</u>	<u>1,299</u>	<u>5,490</u>	<u>471</u>	<u>147</u>	<u>5,577</u>
Colorado	10,956	6,578	168	1,748	186	29	2,247
Idaho	1,594	1,042	157	294	6	4	91
Montana	1,915	1,175	276	364	3	4	93
Oregon	3,936	2,772	233	644	36	27	224
Utah	2,632	1,694	78	396	13	4	447
Washington	13,822	8,863	355	1,888	216	76	2,424
Wyoming	931	678	32	156	11	3	51

TABLE 7.14 (Continued)

ESTIMATED ACTIVE NONPILOT AIRMEN CERTIFICATES HELD, BY FAA REGION AND STATE:
DECEMBER 31, 1987 ^{1/}

FAA Region and State	Total Nonpilot Airmen	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Navigator	Flight Engineer
Southern—Total	<u>72,847</u>	<u>48,420</u>	<u>1,849</u>	<u>10,290</u>	<u>1,688</u>	<u>241</u>	<u>10,359</u>
Alabama	5,507	4,336	133	853	10	7	168
Georgia	14,965	9,485	281	1,483	291	13	3,412
Florida	34,036	23,437	542	4,611	1,027	188	4,231
Kentucky	2,430	1,518	159	438	45	0	270
Mississippi	1,624	1,125	42	346	7	3	101
North Carolina	6,334	3,812	431	1,090	138	17	846
South Carolina	2,365	1,456	94	489	17	5	304
Tennessee	5,586	3,251	167	980	153	8	1,027
Southwest—Total	<u>55,489</u>	<u>39,362</u>	<u>978</u>	<u>8,130</u>	<u>662</u>	<u>87</u>	<u>6,270</u>
Arkansas	2,242	1,570	71	438	15	2	146
Louisiana	4,539	3,365	92	679	37	5	361
New Mexico	2,008	1,342	65	461	21	3	116
Oklahoma	12,415	10,558	163	1,334	29	9	322
Texas	34,285	22,527	587	5,218	560	68	5,325
Western-Pacific—Total	<u>81,819</u>	<u>58,278</u>	<u>1,602</u>	<u>10,956</u>	<u>1,421</u>	<u>418</u>	<u>9,144</u>
Arizona	8,283	5,832	188	1,371	211	22	659
California	68,133	48,974	1,304	8,729	1,043	331	7,752
Hawaii	2,778	1,999	56	340	126	11	246
Nevada	2,625	1,473	54	516	41	54	487
Outside U.S.—Total ^{3/}	<u>19,883</u>	<u>13,423</u>	<u>161</u>	<u>1,490</u>	<u>1,908</u>	<u>101</u>	<u>2,800</u>
Other U.S. Areas—Total	<u>1,516</u>	<u>1,141</u>	<u>34</u>	<u>192</u>	<u>59</u>	<u>0</u>	<u>90</u>
American Samoa	9	5	0	3	0	0	1
Canal Zone	39	16	18	3	2	0	0
Guam	147	79	3	22	7	0	36
Puerto Rico	1,169	929	11	139	47	0	43
Wake Island	9	9	0	0	0	0	0
Virgin Island	143	103	2	25	3	0	10

^{1/} Data for flight engineers and flight navigators represent total active ratings held. Data for dispatchers, mechanics, parachute riggers and ground instructors represent total ratings issued to date. These ratings retain their validity.

^{2/} Includes Outside U.S.

^{3/} Outside U.S. includes Other U.S. Areas outside the 50 states and foreign countries.

TABLE 7.15

ESTIMATED ACTIVE WOMEN NONPILOT CERTIFICATES HELD, BY FAA REGION AND STATE:
DECEMBER 31, 1987 ^{1/}

FAA Region and State	Total Nonpilot Women	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Engineer
Total ^{2/}	<u>7,101</u>	<u>2,237</u>	<u>428</u>	<u>3,232</u>	<u>524</u>	<u>680</u>
United States—Total	<u>7,007</u>	<u>2,224</u>	<u>423</u>	<u>3,162</u>	<u>504</u>	<u>674</u>
Alaskan Region—Total	<u>120</u>	<u>26</u>	<u>11</u>	<u>47</u>	<u>28</u>	<u>6</u>
Central—Total	<u>301</u>	<u>132</u>	<u>17</u>	<u>141</u>	<u>6</u>	<u>5</u>
Iowa	<u>70</u>	<u>36</u>	<u>1</u>	<u>31</u>	<u>2</u>	<u>0</u>
Kansas	96	46	6	43	0	1
Missouri	110	46	7	49	4	4
Nebraska	25	4	3	18	0	0
Eastern—Total	<u>911</u>	<u>205</u>	<u>82</u>	<u>417</u>	<u>130</u>	<u>77</u>
Delaware	20	9	1	8	1	1
District of Columbia	10	0	1	6	1	2
Maryland	92	15	4	49	6	18
New Jersey	125	30	7	47	26	15
New York	318	81	14	137	69	17
Pennsylvania	191	39	23	97	20	12
West Virginia	20	15	0	4	1	0
Virginia	135	16	32	69	6	12
Great Lakes—Total	<u>1,173</u>	<u>386</u>	<u>59</u>	<u>550</u>	<u>71</u>	<u>107</u>
Illinois	331	104	14	150	21	42
Indiana	116	20	19	52	6	17
Michigan	203	56	6	115	9	17
Minnesota	144	52	5	46	21	20
North Dakota	10	2	0	6	1	1
Ohio	269	131	11	115	6	6
South Dakota	15	2	0	13	0	0
Wisconsin	85	19	4	53	5	4
New England—Total	<u>317</u>	<u>101</u>	<u>12</u>	<u>156</u>	<u>15</u>	<u>33</u>
Connecticut	114	42	4	42	8	18
Maine	24	4	1	16	2	1
Massachusetts	116	36	5	62	4	9
New Hampshire	41	15	1	20	1	4
Rhode Island	11	2	0	8	0	1
Vermont	11	2	1	8	0	0
Northwest-Mountain—Total	<u>680</u>	<u>230</u>	<u>28</u>	<u>300</u>	<u>28</u>	<u>94</u>
Colorado	226	73	1	92	12	48
Idaho	28	8	2	17	1	0
Montana	30	5	4	20	0	1
Oregon	72	15	9	46	0	2
Utah	46	13	6	21	1	7
Washington	258	111	4	95	12	36
Wyoming	18	5	2	9	2	0

TABLE 7.15 (Continued)

ESTIMATED ACTIVE WOMEN NONPILOT CERTIFICATES HELD, BY FAA REGION AND STATE:
DECEMBER 31, 1987 ^{1/}

FAA Region and State	Total Nonpilot Women	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Engineer
Southern—Total	<u>1,235</u>	<u>306</u>	<u>117</u>	<u>558</u>	<u>104</u>	<u>150</u>
Alabama	126	30	6	86	1	3
Georgia	141	40	7	55	12	27
Florida	505	149	14	222	66	54
Kentucky	76	21	10	30	6	9
Mississippi	23	5	1	17	0	0
North Carolina	159	30	41	67	7	14
South Carolina	52	8	4	30	2	8
Tennessee	153	23	34	51	10	35
Southwest—Total	<u>889</u>	<u>320</u>	<u>47</u>	<u>414</u>	<u>43</u>	<u>65</u>
Arkansas	28	6	0	20	0	2
Louisiana	85	36	2	38	5	4
New Mexico	57	13	3	35	2	4
Oklahoma	169	80	8	73	1	7
Texas	550	185	34	248	35	48
Western-Pacific—Total	<u>1,381</u>	<u>518</u>	<u>50</u>	<u>599</u>	<u>79</u>	<u>135</u>
Arizona	152	45	6	82	9	10
California	1,137	458	42	471	57	109
Hawaii	38	8	2	20	3	5
Nevada	34	7	0	26	0	11
Outside U.S.—Total ^{4/}	<u>94</u>	<u>13</u>	<u>5</u>	<u>50</u>	<u>20</u>	<u>6</u>
Other U.S. Areas—Total	<u>9</u>	<u>5</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>0</u>
Guam	1	1	0	0	0	0
Puerto Rico	5	3	0	2	0	0
Virgin Island	3	1	0	2	0	0

^{1/} Data for flight engineers and flight navigators represent total active ratings held. Data for dispatchers, mechanics, parachute riggers, and ground instructors represent total ratings issued to date. These ratings retain their validity.

^{2/} Includes Outside U.S.

^{3/} Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

TABLE 7.16

PILOT CERTIFICATES ISSUED, BY CATEGORY: CALENDAR YEARS 1983-1987

Category of Certificates	1983		1984		1985		1986		1987	
	Original	Additional	Original	Additional	Original	Additional	Original	Additional	Original	Additional
Pilot—Total	150,419	30,898	141,763	30,469	138,589	28,420	141,625	32,628	148,987	39,990
Student	92,239	0	90,085	0	86,060	0	88,699	0	84,956 (P)	0
Private	41,210	12,721	36,545	11,784	35,402	11,686	34,816	12,672	42,278	16,302
Commercial	8,789	9,513	7,702	8,892	8,404	7,197	8,889	9,241	11,314	11,365
Airline Transport	5,643	8,187	5,099	9,335	6,081	9,192	6,498	10,372	7,678	11,956
Helicopter (only)	1,932	315	1,808	319	2,105	207	2,209	234	2,217	293
Glider (only)	606	162	524	139	537	136	514	109	542	74
Nonpilot—Total ^{1/}	15,702	5,420	15,436	4,808	16,432	4,713	16,470	5,010	21,878	5,466
Mechanic	11,676	4,470	10,719	4,042	10,559	3,429	10,998	3,289	15,069	4,195
Parachute Rigger	214	13	149	12	157	9	149	11	194	11
Ground Instructor	1,524	371	1,283	293	1,359	343	1,386	323	1,825	366
Dispatcher	632	1	755	3	622	3	516	1	533	3
Flight Navigator	15	2	14	0	1	0	17	0	4	0
Flight Engineer	1,641	563	2,518	458	3,734	929	3,404	1,386	4,233	911
Flight Instructor Certificates ^{2/}	4,614	7,698	4,075	6,828	4,298	5,921	4,628	5,421	6,327	6,378
Instrument Ratings ^{3/}	0	11,078	0	10,845	0	11,673	0	13,688	0	18,296

(P) Preliminary

^{1/} Revised.

N/A Not available.

Note: Additional ratings are entered on current airman certificates as follows:

Private, commercial, and airline transport pilot—aircraft category, class, and type instrument rating.

Helicopter pilot—instrument and type ratings.

Flight instructor—ratings for each aircraft category in which the holder is qualified, and for instrument flying instruction.

Mechanic—airframe and powerplant ratings.

Parachute rigger—senior or master rigger—senior or master rigger ratings.

Ground instructor—ratings for each subject in which the holder is qualified to give instruction.

Air traffic control tower operator—junior/senior ratings for airport where holder may control air traffic.

^{1/} Six month total.^{2/} Not included in total.^{3/} Special ratings shown on pilot certificates represented above; not included in total.

TABLE 7.17

PILOT CERTIFICATES ISSUED, BY CATEGORY AND CONDUCTOR: DECEMBER 31, 1987

Category of Certificates	Total Ratings Issued	Original Issuances				Additional Ratings			
		Total	Examiner	Inspector	No Test	Total	Examiner	Inspector	No Test
Total	216,341	170,865	68,501	87,251	15,113	45,476	38,352	2,831	4,293
Pilot—Total	188,977	146,987	52,868	86,586	9,533	39,990	34,153	2,693	3,144
Student	84,958 (P)	84,958(P)	0	84,958 (P)	0	0	0	0	0
Private	58,580	42,278	37,115	447	4,716	16,302	15,518	88	696
Commercial	22,679	11,314	8,144	68	3,102	11,365	9,492	141	1,732
Airline Transport	19,634	7,678	6,208	1,018	452	11,956	8,890	2,443	623
Helicopter (only)	2,510	2,217	893	69	1,255	293	181	20	92
Glider (only)	616	542	508	26	8	74	72	1	1
Nonpilot—Total	27,364	21,878	15,633	665	5,580	5,486	4,199	138	1,149
Mechanic	19,284	15,089	12,018	35	3,036	4,195	3,938	0	257
Parachute Rigger	205	194	88	17	89	11	7	1	3
Ground Instructor	2,191	1,825	121	2	1,702	366	16	3	347
Dispatcher	536	533	333	90	110	3	2	0	1
Flight Navigator	4	4	0	4	0	0	0	0	0
Flight Engineer	5,144	4,233	3,073	517	643	911	236	134	541
Flight Instructor*	12,705	6,327	6,143	148	36	6,378	6,163	200	15

(P) Preliminary

Note: Excludes Renewals

Additional ratings are entered on current airman certificates as follows:

Private, Commercial, and Airline Transport Pilot—Aircraft Category, Class and Type Instrument Rating.

Helicopter Pilot—Instrument and Type Ratings.

Flight Instructor—Ratings for each aircraft category in which the holder is qualified to instruct, and ratings for instrument flying instruction.

Mechanic—Airframe and Powerplant Ratings.

Parachute Rigger—Senior or Master Rigger Ratings.

Ground Instructor—Ratings for each subject in which the holder is qualified to give ground instruction.

Air Traffic Control Tower Operator—Junior/Senior Ratings for airports where holder may control air traffic.

*Special ratings shown on pilot certificates represented above, not included in total.

TABLE 7.18

INSTRUMENT RATINGS ISSUED: 1987, 1986, 1983

Class of Certificates	1987	1986	1983	Percent Change 1987-1986
Total—All Groups	<u>18,296</u>	<u>13,657</u>	<u>11,078</u>	<u>34</u>
Private Pilots—Total	<u>11,142</u>	<u>8,354</u>	<u>7,034</u>	<u>33</u>
Private Airplane (only)	10,397	7,840	6,549	33
Private Airplane, Private Glider	135	95	92	42
Private Airplane, Commercial Glider	12	1	5	1100
Private Airplane, Private Helicopter	35	29	20	21
Private Airplane, Commercial Helicopter	234	178	149	31
Private Airplane, Private Glider, Private Helicopter	1	0	1	0
Private Airplane, Other	328	211	218	55
Commercial Pilots—Total	<u>5,996</u>	<u>4,153</u>	<u>2,956</u>	<u>44</u>
Commercial Airplane (only)	5,044	3,437	2,376	47
Commercial Airplane, Private Glider	48	31	23	54
Commercial Airplane, Commercial Glider	61	31	36	97
Commercial Airplane, Private Helicopter	14	5	5	180
Commercial Airplane, Commercial Helicopter	814	666	495	22
Commercial Airplane, Private Glider, Commercial Helicopter	7	3	4	133
Commercial Airplane, Commercial Glider, Commercial Helicopter	7	9	14	22
Commercial Airplane, Other	1	1	3	—
Rotorcraft Pilots—Total	<u>1,158</u>	<u>1,150</u>	<u>1,088</u>	<u>1</u>
Commercial Helicopter	1,135	1,145	1,085	-1
Commercial Helicopter, Airline Transport Helicopter	20	0	0	—
Commercial Helicopter, Commercial Glider	1	1	1	—
Commercial Helicopter, Other	2	4	2	-50

Table 7.19

STUDENT CERTIFICATES ISSUED, BY MONTH: 1983 - 1987

Month	1983	1984	1985	1986	1987
Total	93,239	90,167 <u>r/</u>	86,060	88,706	84,958(P)
January	6,511	7,485	6,414	6,641	6,098
February	6,146	6,338	5,233	5,590	6,543
March	7,724	7,086	6,809	6,472	7,125
April	6,737	6,931	7,492	7,488	7,139
May	7,650	7,784	7,749	7,415	6,164
June	9,344	8,533	8,279	8,211	8,491
July	9,253	9,202	9,249	9,648	8,973
August	10,426	9,559	8,892	8,886	8,389
September	9,971	7,781	7,973	8,961	8,094 (P)
October	8,040	8,129	7,892	8,133	7,537 (P)
November	6,500	6,291	5,579	5,809	5,750 (P)
December	4,937	5,048	4,499	5,452	4,655 (P)

(P) Preliminary

r/ Revised

VIII. GENERAL AVIATION AIRCRAFT

General aviation aircraft activity information was obtained using the General Aviation Activity and Avionics Survey, which is mailed to the owners of a sample of registered general aviation aircraft. The sample is a scientifically designed random sample which represents all general aviation aircraft registered in the United States.

The survey collects data relative to flight hours, airframe hours and the avionics equipment on board the aircraft. In addition, the survey collects information about the number of hours flown under instrument flight rules, fuel consumption rates, and the state where the aircraft is based.

Because the estimates are derived from a sample--not the total population of aircraft--a certain amount of sampling error is introduced. The user must consider this error along with the estimate itself when making an inference or drawing any conclusions about the aircraft population. Although the exact value of the sample error is unknown, a quantity known as the standard error is used to approximate it. Using the standard error, one can develop an interval within which the true population estimate will lie with a known probability. The probability that the true value lies within the interval depends on the width of the interval, i.e., the estimate plus or minus 1, 2, or 3 times the standard error. The table below shows selected interval widths and their corresponding confidence.

<u>Width of Interval</u>	<u>Approximate Confidence That Interval Includes true Value</u>
1 standard error	68%
2 standard errors	95%
3 standard errors	99%

For example, if the estimate for the total number of active piston powered rotorcraft were 2,658 and the standard error was 176, then the 95% confidence interval would be $2,658 \pm 2(176)$ or (2306, 3010). One would say that there is a 95% chance that the number of active piston powered rotorcraft lies between 2306 and 3010.

In some tables, the standard error is expressed as a percent. To calculate the standard error, multiply the estimated by the percentage. To derive the 95% confidence interval, proceed as before. For example, if total hours flown were 35,792 thousand hours and the percentage standard error was 3.0%, the 95% confidence interval would be:

$$\begin{aligned} 35,792 \pm (2 \times 3\% \times 35,792) &= \\ 35,792 \pm 2148 &= \\ (33,644: 37,940) \end{aligned}$$

The standard error, percent standard error, or a code for the standard error is shown for each estimate made from the sample in this chapter.

More detailed estimates and more detailed discussion of the survey and its methodology are available in General Aviation Activity and Avionics Survey.

TABLE 8.1

ACTIVE GENERAL AVIATION AIRCRAFT BY AIRCRAFT TYPE AND PRIMARY USE: 1987
(Percent standard error is shown in parenthesis)

Aircraft Type	Total	Executive	Business	Personal	Instruc- tional	Aerial Applica- tion	Aerial Observa- tion	Other Work	Commuter Air Carrier	Air Taxi	Other
Fixed-Wing--Total	204,067 (0.5%)	11,116 (3.9%)	39,324 (2.7%)	117,895 (1.1%)	14,831 (5.0%)	5,760 (3.0%)	3,654 (10.4%)	1,125 (18.5%)	1,005 (15.6%)	4,909 (8.1%)	4,449 (8.6%)
Piston--Total	194,455 (0.5%)	4,740 (8.2%)	38,455 (2.7%)	117,712 (1.1%)	14,749 (5.0%)	5,682 (3.1%)	3,594 (10.5%)	1,109 (18.8%)	698 (21.4%)	4,050 (9.4%)	3,666 (9.9%)
One Engine	171,035 (0.6%)	1,448 (16.7%)	29,152 (3.2%)	112,000 (1.1%)	14,032 (5.2%)	5,558 (3.1%)	3,259 (11.4%)	1,032 (19.6%)	311 (29.0%)	1,537 (16.3%)	2,707 (12.2%)
Two Engine	23,307 (1.3%)	3,292 (9.2%)	9,303 (4.7%)	5,706 (6.5%)	713 (20.1%)	78 (46.7%)	336 (23.2%)	77 (*)	387 (30.7%)	2,489 (11.6%)	925 (16.4%)
Other Piston	112 (24.6%)	0 (0.0%)	0 (0.0%)	5 (*)	3 (*)	45 (2.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	23 (45.7%)	35 (31.9%)
Turboprop--Total	5,274 (1.9%)	3,253 (4.5%)	504 (18.8%)	144 (40.9%)	57 (*)	77 (4.4%)	55 (44.3%)	14 (*)	301 (15.2%)	485 (18.2%)	384 (21.0%)
Two Engine	5,060 (1.9%)	3,247 (4.5%)	504 (18.8%)	142 (41.2%)	57 (*)	1 (*)	27 (44.2%)	14 (*)	287 (14.9%)	446 (19.5%)	335 (23.0%)
Other Turboprop	214 (9.0%)	6 (*)	0 (0.0%)	2 (*)	0 (0.0%)	76 (0.0%)	28 (*)	0 (0.0%)	14 (*)	39 (36.0%)	49 (46.7%)
Turbojet--Total	4,338 (1.5%)	3,123 (3.8%)	365 (21.5%)	39 (43.1%)	26 (*)	0 (0.0%)	5 (*)	1 (*)	6 (*)	375 (19.7%)	398 (18.6%)
Two Engine	3,900 (1.6%)	2,918 (4.0%)	324 (23.8%)	9 (*)	18 (*)	0 (0.0%)	5 (*)	0 (0.0%)	6 (*)	375 (19.7%)	246 (29.0%)
Other Turbojet	438 (5.1%)	205 (10.7%)	42 (35.4%)	30 (29.7%)	8 (*)	0 (0.0%)	0 (0.0%)	1 (*)	0 (0.0%)	0 (0.0%)	152 (13.1%)
Rotorcraft--Total	6,333 (3.2%)	740 (17.4%)	498 (20.2%)	835 (13.3%)	314 (21.4%)	756 (16.4%)	847 (18.2%)	221 (24.5%)	9 (*)	1,319 (14.2%)	793 (16.3%)
Piston	2,813 (5.0%)	17 (*)	273 (16.9%)	631 (10.7%)	296 (22.3%)	523 (15.9%)	489 (17.5%)	137 (31.5%)	0 (0.0%)	23 (*)	424 (19.0%)
Turbine	3,520 (4.2%)	724 (17.8%)	225 (39.6%)	203 (43.3%)	18 (*)	233 (39.7%)	358 (35.7%)	84 (40.6%)	9 (*)	1,296 (14.3%)	369 (27.4%)
Other--Total	6,783 (3.4%)	104 (*)	121 (*)	4,758 (4.0%)	582 (16.3%)	0 (0.0%)	357 (25.0%)	232 (30.5%)	0 (0.0%)	0 (0.0%)	630 (21.7%)
Total All Aircraft	217,183 (0.5%)	11,960 (3.8%)	39,943 (2.6%)	123,487 (1.0%)	15,727 (4.8%)	6,516 (3.3%)	4,858 (8.6%)	1,577 (14.4%)	1,014 (15.5%)	6,228 (7.1%)	5,873 (7.2%)

NOTE: Columns may not add to totals due to rounding and estimation procedures.

* Indicates a standard error greater than 50.0%.

TABLE 8.2
ACTIVE GENERAL AVIATION AIRCRAFT BY AIRCRAFT TYPE
1980 - 1987
(Standard error is shown in parenthesis)

	1987	1986	1985	1984	1983	1982	1981	1980
Fixed-Wing--Total	204,067 (1,062)	206,090 (1,112)	197,974 (1,154)	207,571 (994)	200,831 (1,306)	198,377 (1,199)	201,201 (1,045)	200,097 (923)
Piston--Total	194,455 (1,055)	195,646 (1,102)	188,191 (1,146)	197,442 (990)	191,480 (1,296)	189,195 (1,192)	193,370 (1,042)	193,014 (921)
One Engine	171,035 (1,011)	171,777 (1,036)	164,385 (1,091)	171,922 (942)	166,247 (1,248)	164,173 (1,140)	167,898 (995)	168,435 (874)
Two Engine	23,307 (303)	23,721 (372)	23,659 (349)	25,258 (301)	24,910 (349)	24,882 (346)	25,356 (306)	24,366 (290)
Other Piston	112 (28)	148 (36)	148 (31)	262 (35)	143 (14)	140 (24)	114 (29)	212 (17)
Turboprop--Total	5,274 (99)	5,964 (116)	5,407 (111)	5,809 (58)	5,453 (95)	5,186 (60)	4,660 (49)	4,090 (46)
Two Engine	5,060 (97)	5,779 (112)	5,240 (110)	5,633 (55)	5,311 (87)	5,037 (53)	4,525 (49)	3,966 (45)
Other Turboprop	214 (19)	185 (30)	167 (13)	176 (15)	142 (38)	149 (28)	134 (5)	123 (10)
Turbojet--Total	4,338 (67)	4,480 (97)	4,375 (74)	4,320 (67)	3,898 (130)	3,996 (112)	3,171 (72)	2,992 (40)
Two Engine	3,900 (63)	4,037 (64)	3,914 (67)	3,780 (50)	3,447 (92)	3,309 (84)	2,808 (68)	2,551 (37)
Other Turbojet	438 (22)	444 (72)	460 (33)	540 (145)	451 (91)	687 (73)	362 (23)	441 (13)
Motorcraft--Total	6,333 (203)	6,943 (215)	6,418 (256)	7,096 (218)	6,540 (245)	6,169 (226)	6,974 (189)	6,001 (142)
Piston	2,813 (140)	2,921 (175)	2,877 (201)	2,936 (185)	2,541 (191)	2,419 (178)	3,250 (173)	2,794 (133)
Turbine	3,520 (147)	4,022 (124)	3,541 (159)	4,160 (115)	3,998 (153)	3,749 (140)	3,724 (76)	3,207 (49)
Other--Total	6,783 (228)	7,010 (211)	6,263 (207)	6,275 (172)	5,923 (207)	5,233 (211)	5,049 (179)	4,945 (142)
Total All Aircraft	217,183 (1,105)	220,044 (1,152)	210,654 (1,200)	220,943 (1,032)	213,203 (1,345)	209,779 (1,238)	213,226 (1,078)	211,045 (945)

NOTE: Columns may not add to totals due to rounding and estimation procedures.

TABLE 8.3

ACTIVE GENERAL AVIATION AIRCRAFT TOTAL HOURS FLOWN, BY AIRCRAFT TYPE AND PRIMARY USE: 1987
(Percent standard error is shown in parenthesis)

Aircraft Type	Total	Executive	Business	Personal	Instruc- tional	Aerial Applica- tion	Aerial Observa- tion	Other Work	Commuter Air Carrier	Air Taxi	Other
Fixed-Wing—Total	30,744,172 (1.7%)	3,160,638 (4.6%)	5,625,664 (3.9%)	10,505,858 (2.4%)	4,704,571 (6.9%)	1,436,057 (6.0%)	1,028,684 (16.7%)	290,044 (21.7%)	1,353,481 (16.1%)	1,986,871 (9.9%)	652,301 (10.8%)
Piston—Total	27,039,354 (1.9%)	1,022,086 (9.6%)	5,342,750 (4.0%)	10,484,577 (2.3%)	4,669,747 (7.0%)	1,372,184 (6.2%)	1,012,717 (16.2%)	279,990 (22.2%)	860,441 (22.0%)	1,534,186 (11.9%)	460,670 (13.4%)
One Engine	22,140,932 (2.0%)	278,053 (18.7%)	3,703,437 (4.4%)	9,864,253 (2.4%)	4,517,563 (7.2%)	1,358,270 (6.2%)	940,803 (17.0%)	242,269 (24.3%)	288,040 (26.5%)	590,922 (20.6%)	357,318 (15.5%)
Two Engine	4,883,151 (5.2%)	744,033 (11.3%)	1,639,313 (8.9%)	620,098 (8.1%)	151,892 (21.0%)	7,117 (47.6%)	71,914 (30.8%)	37,721 (57.2%)	571,401 (53.6%)	936,006 (18.4%)	102,655 (27.2%)
Other Piston	15,271 (31.5%)	0 (0.0%)	0 (0.0%)	226 (126.2%)	293 (145.2%)	6,797 (7.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	7,258 (46.4%)	697 (56.4%)
Turboprop—Total	2,177,061 (5.0%)	1,018,539 (6.2%)	144,855 (23.5%)	18,685 (41.2%)	34,132 (78.1%)	63,872 (33.6%)	14,686 (47.2%)	10,048 (79.8%)	488,415 (17.4%)	281,419 (17.9%)	102,411 (24.7%)
Two Engine	1,993,647 (5.0%)	1,017,579 (6.2%)	144,855 (23.5%)	18,378 (41.5%)	34,132 (78.1%)	583 (235.0%)	3,759 (44.5%)	10,048 (79.8%)	456,912 (17.3%)	219,491 (20.3%)	87,909 (27.1%)
Other Turboprop	183,414 (24.7%)	960 (202.8%)	0 (0.0%)	307 (368.3%)	0 (0.0%)	63,289 (33.8%)	10,927 (76.9%)	0 (0.0%)	31,502 (118.2%)	61,928 (36.5%)	14,502 (58.5%)
Turbojet—Total	1,527,760 (3.9%)	1,120,012 (5.3%)	138,060 (25.4%)	2,597 (44.5%)	693 (67.0%)	0 (0.0%)	1,281 (135.2%)	6 (161.0%)	4,625 (222.0%)	171,266 (21.9%)	89,220 (22.5%)
Two Engine	1,420,614 (4.1%)	1,046,442 (5.6%)	118,981 (28.4%)	1,202 (157.2%)	623 (89.6%)	0 (0.0%)	1,281 (135.2%)	0 (0.0%)	4,625 (222.0%)	171,266 (21.9%)	76,193 (32.2%)
Other Turbojet	107,146 (10.0%)	73,569 (12.1%)	19,079 (37.9%)	1,394 (40.9%)	69 (72.3%)	0 (0.0%)	0 (0.0%)	6 (161.0%)	0 (0.0%)	0 (0.0%)	13,027 (24.2%)
Rotorcraft—Total	2,283,126 (7.3%)	230,836 (21.4%)	77,634 (23.2%)	46,714 (17.0%)	128,485 (24.4%)	229,960 (18.0%)	360,348 (24.5%)	70,007 (28.7%)	5,198 (126.5%)	890,131 (19.4%)	243,813 (18.4%)
Piston	651,687 (9.2%)	2,050 (63.4%)	34,779 (30.1%)	30,545 (16.3%)	123,791 (25.2%)	138,599 (18.3%)	186,445 (24.0%)	40,799 (36.9%)	0 (0.0%)	5,311 (82.0%)	89,368 (22.5%)
Turbine	1,631,439 (9.6%)	228,786 (21.9%)	42,855 (38.8%)	16,168 (47.6%)	4,694 (74.2%)	91,361 (42.2%)	173,903 (47.3%)	29,208 (46.6%)	5,198 (126.5%)	884,620 (19.5%)	154,445 (31.6%)
Other—Total	415,888 (5.9%)	11,786 (64.1%)	9,931 (53.2%)	234,032 (7.3%)	71,011 (22.5%)	0 (0.0%)	23,016 (32.2%)	19,342 (32.8%)	0 (0.0%)	0 (0.0%)	46,772 (26.0%)
Total All Aircraft	33,443,186 (1.7%)	3,403,260 (4.5%)	5,713,229 (3.8%)	10,786,604 (2.3%)	4,904,066 (6.7%)	1,666,017 (5.6%)	1,412,047 (13.2%)	379,393 (17.3%)	1,358,679 (16.1%)	2,877,002 (8.8%)	942,886 (8.8%)

NOTE: Columns may not add to totals due to rounding and estimation procedures.

TABLE 8.4
ACTIVE GENERAL AVIATION AIRCRAFT
TOTAL HOURS FLOWN, BY AIRCRAFT TYPE
1980 - 1987
(Hours in Thousands)
(Standard Error is shown in parenthesis)

	1987	1986	1985	1984	1983	1982	1981	1980
Fixed-Wing --Total	<u>30,744</u> (530)	<u>31,397</u> (536)	<u>31,495</u> (529)	<u>33,265</u> (692)	<u>32,558</u> (682)	<u>33,728</u> (632)	<u>37,628</u> (635)	<u>38,318</u>
Piston--Total	<u>27,039</u> (515)	<u>26,861</u> (510)	<u>27,793</u> (516)	<u>29,194</u> (526)	<u>28,911</u> (668)	<u>29,950</u> (658)	<u>34,086</u> (625)	<u>34,747</u> (627)
One Engine	22,141 (449)	21,939 (458)	22,851 (475)	23,506 (485)	23,149 (595)	24,259 (602)	27,692 (588)	28,339 (585)
Two Engine	4,883 (252)	4,911 (224)	4,915 (200)	5,585 (201)	5,730 (304)	5,657 (265)	6,369 (210)	6,277 (224)
Other Piston	15 (5)	11 (5)	26 (9)	102 (30)	32 (10)	33 (10)	25 (6)	130 (18)
Turboprop--Total	<u>2,177</u> (109)	<u>2,882</u> (148)	<u>2,080</u> (96)	<u>2,506</u> (117)	<u>2,173</u> (154)	<u>2,168</u> (145)	<u>2,155</u> (82)	<u>2,240</u> (79)
Two Engine	1,994 (100)	2,797 (148)	2,016 (96)	2,452 (116)	2,090 (150)	2,096 (143)	2,092 (82)	2,138 (78)
Other Turboprop	183 (45)	85 (12)	64 (7)	54 (14)	83 (31)	71 (20)	63 (11)	56 (10)
Turbojet--Total	<u>1,528</u> (60)	<u>1,654</u> (78)	<u>1,622</u> (72)	<u>1,566</u> (74)	<u>1,473</u> (97)	<u>1,611</u> (109)	<u>1,387</u> (50)	<u>1,332</u> (59)
Two Engine	1,421 (59)	1,566 (76)	1,461 (70)	1,328 (67)	1,350 (92)	1,347 (98)	1,238 (48)	1,163 (52)
Other Turbojet	107 (11)	98 (19)	161 (17)	237 (33)	124 (31)	264 (46)	149 (16)	169 (27)
Rotorcraft--Total	<u>2,483</u> (168)	<u>2,625</u> (175)	<u>2,155</u> (166)	<u>2,495</u> (138)	<u>2,271</u> (159)	<u>2,350</u> (156)	<u>2,685</u> (185)	<u>2,338</u> (138)
Piston	652 (60)	804 (103)	564 (85)	592 (67)	572 (49)	579 (58)	930 (108)	736 (75)
Turbine	1,631 (157)	1,821 (141)	1,590 (142)	1,903 (121)	1,700 (151)	1,771 (145)	1,754 (150)	1,603 (116)
Other--Total	416 (25)	394 (30)	414 (34)	358 (24)	420 (49)	379 (40)	391 (34)	359 (21)
Total All Aircraft	<u>33,443</u> (556)	<u>34,416</u> (565)	<u>34,063</u> (556)	<u>36,119</u> (562)	<u>35,249</u> (712)	<u>36,457</u> (701)	<u>40,704</u> (659)	<u>41,016</u> (650)

NOTE: Columns may not add to totals due to rounding and estimation procedures.

TABLE 8.5

ACTIVE GENERAL AVIATION AIRCRAFT
AVERAGE HOURS FLOWN, BY AIRCRAFT TYPE
1980 - 1987
(Standard error is shown in parenthesis)

	1987	1986	1985	1984	1983	1982	1981	1980
Fixed-Wing—Total	<u>145.6</u> (2.5)	<u>145.1</u> (2.5)	<u>155.5</u> (2.6)	<u>156.0</u> (2.6)	<u>160.9</u> (3.3)	<u>170.6</u> (3.4)	<u>184.4</u> (3.1)	<u>187.7</u> (3.1)
Piston—Total	<u>136.9</u> (2.5)	<u>135.4</u> (2.5)	<u>147.1</u> (2.6)	<u>147.1</u> (2.6)	<u>150.6</u> (3.4)	<u>159.8</u> (3.4)	<u>175.4</u> (3.2)	<u>178.2</u> (3.1)
One Engine	129.4 (2.6)	127.8 (2.6)	139.5 (2.8)	137.7 (2.8)	139.1 (3.5)	149.1 (3.6)	165.8 (3.4)	168.2 (3.4)
Two Engine	202.9 (10.3)	204.4 (9.0)	207.6 (7.9)	218.2 (7.0)	230.5 (11.9)	230.6 (10.6)	251.1 (7.7)	254.8 (8.4)
Other Piston	140.2 (31.8)	111.1 (50.4)	184.2 (49.8)	433.4 (107.4)	240.4 (32.3)	246.8 (39.2)	197.0 (3.5)	625.4 (38.8)
Turboprop—Total	<u>388.9</u> (18.3)	<u>422.9</u> (18.9)	<u>362.0</u> (15.3)	<u>414.2</u> (18.4)	<u>389.4</u> (24.7)	<u>396.3</u> (25.4)	<u>470.1</u> (17.9)	<u>433.4</u> (16.1)
Two Engine	374.2 (17.7)	420.6 (19.4)	360.7 (15.8)	416.0 (18.8)	386.3 (25.0)	394.4 (25.9)	469.4 (18.2)	534.8 (16.4)
Other Turboprop	839.9 (205.6)	498.8 (68.8)	396.5 (23.8)	339.3 (58.1)	578.5 (131.2)	473.0 (84.1)	498.8 (92.4)	487.4 (73.1)
Turbojet—Total	<u>356.2</u> (13.0)	<u>353.8</u> (16.9)	<u>368.7</u> (14.8)	<u>353.6</u> (14.2)	<u>382.2</u> (22.5)	<u>404.0</u> (24.9)	<u>436.3</u> (12.5)	<u>443.6</u> (16.6)
Two Engine	371.5 (14.3)	385.0 (18.4)	374.6 (16.5)	348.6 (14.2)	391.6 (24.2)	407.0 (27.7)	422.6 (13.6)	456.1 (18.4)
Other Turbojet	229.2 (22.1)	153.8 (43.0)	325.1 (19.0)	392.6 (57.7)	273.7 (40.2)	385.3 (52.1)	376.5 (22.7)	349.9 (29.1)
Rotorcraft—Total	<u>359.3</u> (25.0)	<u>380.2</u> (23.8)	<u>336.1</u> (22.7)	<u>343.6</u> (18.5)	<u>350.2</u> (21.9)	<u>383.2</u> (21.9)	<u>390.8</u> (26.2)	<u>382.4</u> (20.7)
Piston	228.9 (17.9)	273.2 (30.2)	191.6 (24.5)	186.8 (18.2)	221.1 (15.0)	236.8 (18.9)	285.3 (29.3)	262.9 (20.9)
Turbine	485.4 (46.0)	459.4 (34.8)	460.3 (36.7)	468.7 (29.8)	431.6 (34.4)	474.2 (33.5)	489.5 (42.6)	497.7 (35.4)
Other—Total	<u>62.0</u> (3.4)	<u>56.2</u> (4.2)	<u>67.1</u> (5.1)	<u>56.5</u> (3.6)	<u>71.1</u> (8.0)	<u>72.4</u> (7.2)	<u>78.4</u> (6.3)	<u>75.0</u> (3.9)
Total All Aircraft	<u>148.4</u> (2.4)	<u>148.9</u> (2.4)	<u>158.2</u> (2.5)	<u>158.1</u> (2.5)	<u>164.0</u> (3.2)	<u>174.0</u> (3.3)	<u>188.1</u> (3.1)	<u>190.5</u> (3.0)

TABLE 8.6

**ACTIVE GENERAL AVIATION AIRCRAFT AND HOURS FLOWN
BY FAA REGION AND STATE OF BASED AIRCRAFT
1987**

FAA Region & State	Active Aircraft		Hours Flown	
	Aircraft	Standard Error	Hours (000)	Standard Error (000)
Total	<u>217,183</u>	<u>1,105</u>	<u>33,443</u>	<u>556</u>
Alaskan Region—Total	<u>7,496</u>	<u>485</u>	<u>1,354</u>	<u>119</u>
Central—Total	<u>13,220</u>	<u>724</u>	<u>1,835</u>	<u>129</u>
Iowa	2,910	351	465	70
Kansas	3,827	397	505	65
Missouri	4,358	425	604	72
Nebraska	2,126	297	261	47
Eastern—Total	<u>24,076</u>	<u>983</u>	<u>3,479</u>	<u>168</u>
Delaware	827	185	148	38
District of Columbia	37	35	3	3
Maryland	2,660	336	383	62
New Jersey	3,899	400	585	68
New York	6,431	503	963	89
Pennsylvania	5,970	485	809	75
Virginia	3,205	362	466	60
West Virginia	1,046	218	123	34
Great Lakes—Total	<u>38,622</u>	<u>1,153</u>	<u>5,220</u>	<u>240</u>
Illinois	7,688	559	1,161	148
Indiana	4,098	415	553	68
Michigan	7,160	539	833	74
Minnesota	4,959	447	637	71
North Dakota	1,353	243	200	50
Ohio	7,850	568	1,154	110
South Dakota	1,154	218	107	25
Wisconsin	4,361	423	575	74
New England—Total	<u>9,111</u>	<u>609</u>	<u>1,237</u>	<u>106</u>
Connecticut	2,016	294	334	58
Maine	1,301	233	148	40
Massachusetts	3,413	379	435	54
New Hampshire	1,338	237	177	39
Rhode Island	389	133	80	38
Vermont	654	161	63	19

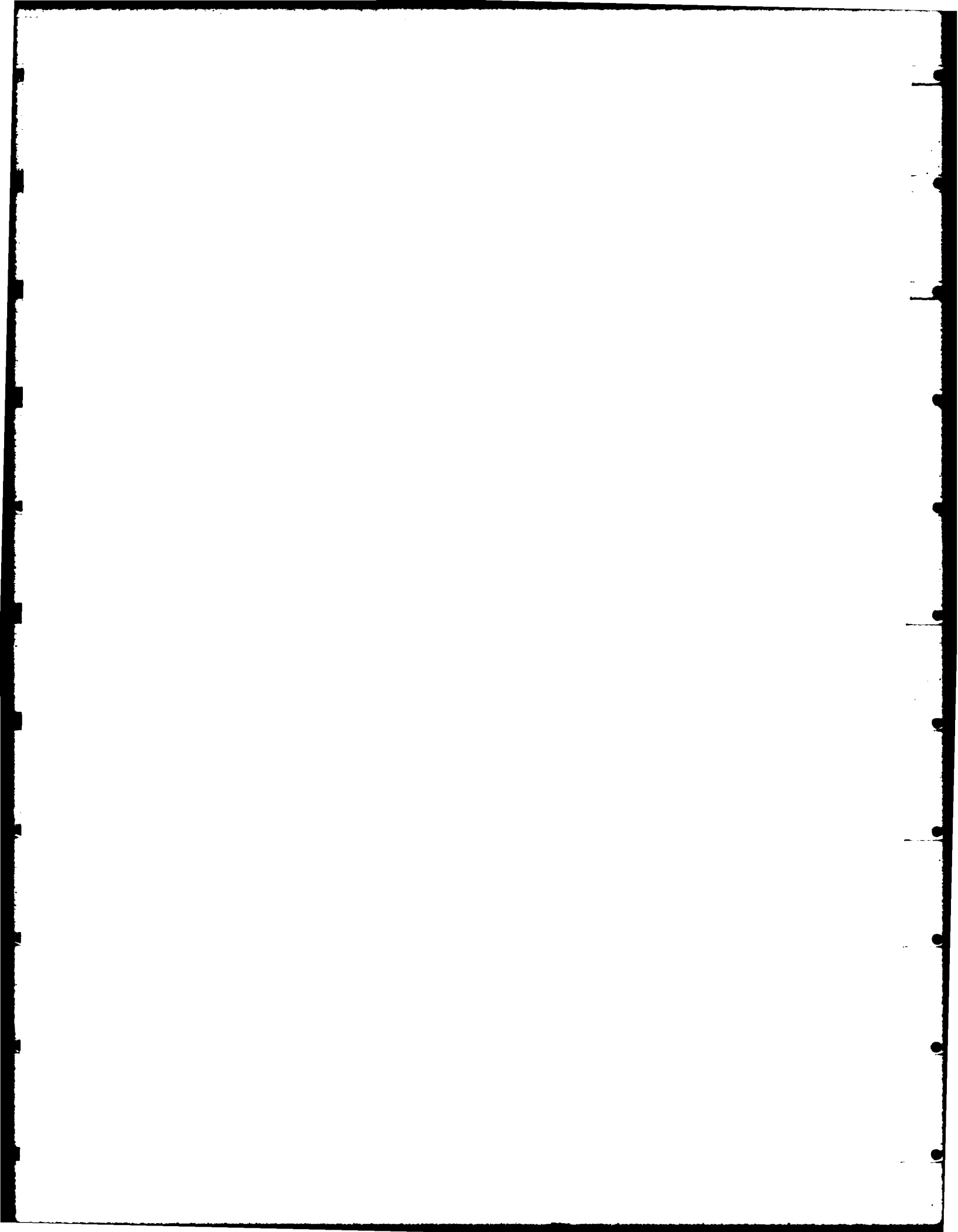
TABLE 8.6 (Continued)

**ACTIVE GENERAL AVIATION AIRCRAFT AND HOURS FLOWN
BY FAA REGION AND STATE OF BASED AIRCRAFT
1987**

FAA Region & State	Active Aircraft		Hours Flown	
	Aircraft	Standard Error	Hours (000)	Standard Error (000)
Northwest Mountain—Total	<u>21,181</u>	<u>952</u>	<u>3,209</u>	<u>200</u>
Colorado	4,374	426	601	76
Idaho	2,062	294	289	51
Montana	2,154	307	353	63
Oregon	4,254	421	548	59
Utah	1,070	210	496	148
Washington	6,232	502	795	88
Wyoming	1,035	212	125	30
Southern—Total	<u>34,747</u>	<u>1,142</u>	<u>6,005</u>	<u>281</u>
Alabama	2,418	318	394	67
Florida	13,614	727	2,673	213
Georgia	4,789	447	707	80
Kentucky	1,615	265	255	48
Mississippi	2,049	293	365	62
North Carolina	4,944	453	710	87
Puerto Rico	338	121	67	28
South Carolina	1,782	277	341	65
Tennessee	3,062	361	460	62
Southwest—Total	<u>30,357</u>	<u>1,101</u>	<u>5,200</u>	<u>277</u>
Arkansas	2,724	332	508	84
Louisiana	3,327	372	1,067	173
New Mexico	2,121	296	278	56
Oklahoma	3,827	398	488	766
Texas	18,358	836	2,859	180
Western-Pacific—Total	<u>37,884</u>	<u>1,104</u>	<u>5,548</u>	<u>229</u>
Arizona	5,085	460	680	90
California	30,982	1,049	4,606	187
Hawaii	486	140	163	75
Nevada	1,817	272	262	58
Other U. S. Territories	<u>136</u>	<u>75</u>	<u>32</u>	<u>14</u>

NOTE: Column totals may differ from printed totals due to estimation procedures.

N/A Not available



IX. AIRCRAFT ACCIDENTS

The data presented in this chapter were obtain from the National Transportation Safety Board.

The Safety Board's statistics categorize aviation accidents according to the Federal Air Regulations under which the accident flights were made. The groupings are:

Large airlines in scheduled service under Part 121 of the regulations
Commuter carriers in scheduled service under Part 135
"On-demand" air taxis in unscheduled operations under Part 135, and
General aviation--all other civil flying.

See Glossary under "Aircraft Accident: for NTSB definitions for the following terms: "Fatal Injury", "Operator", "Serious Injury", and "Substantial Damage".

More detailed accident data may be obtained from the National Transportation Safety Board.

TABLE 9.1

1987 AIR CARRIER AND GENERAL AVIATION
AIRCRAFT ACCIDENTS AND FATALITIES
(PRELIMINARY DATA)

Air Carrier and General Aviation Operations	Number of Accidents		Number of Fatalities
	Total	Fatal	
Air Carriers			
Air Carriers Operating under 14 CFR 121 ¹			
Scheduled	31	4	231
Nonscheduled	5	1	1
Air Carriers Operating under 14 CFR 135			
Scheduled ²	35	10	58
Nonscheduled ³	98	31	68
General Aviation ⁴	2,420	426	788

1 Airlines.

2 Commuters.

3 On-Demand Air Taxis.

4 Includes accidents involving aircraft flown under rules other than 14 CFR 121 and CFR 135.

Source: National Transportation Safety Board.

TABLE 5.2
FATAL ACCIDENTS, FATALITIES
AIRLINES: 1967
(U.S. AIR CARRIERS OPERATING UNDER 14 CFR 121)
(PRELIMINARY DATA)

Location	Operator	Date	Service	Aircraft	Fatalities				Total Aboard	Reported Type of Accident
					Total	Passenger	Crew	Others		
SCHEDULED SERVICE										
<u>Total</u>					<u>231</u>	<u>211</u>	<u>16</u>	<u>2</u>	<u>264</u>	
Kansas City, MO	Buffalo Air	4/13	Cargo	E-767	4	0	4	0	4	Crashed two miles short of runway during instrument approach.
Romulus, MI	Northwest	8/16	Psgr	DC-9	156	148	6	2	155	Crashed onto freeway shortly after takeoff.
Denver, CO	Continental	11/15	Psgr	DC-9	28	25	3	0	82	Crashed while taking off during snow storm.
San Luis Obispo, CA	PSA	12/7	Psgr	EA-146 43	38	5	0	43		Suspected suicide/sabotage
NONSCHEDULED SERVICE										
<u>Total</u>					<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>135</u>	
Durango, Mex	Skyworld	2/14	Psgr	E-767	1	1	0	0	135	Passenger died as result of injuries received during in-flight encounter with turbulence

TABLE 9.3

AIRCRAFT ACCIDENTS, FATALITIES, AND ACCIDENT RATES
U.S. GENERAL AVIATION FLYING
1978 - 1987

(ALL OPERATIONS OTHER THAN THOSE OPERATING UNDER 14 CFR 121 OR 14 CFR 135)

Year	Accidents		Total Fatalities	Aircraft Hours Flown (000) [#]	Accident Rate 100,000 Aircraft Hours ^a	
	Total	Fatal			Total	Fatal
1978	4,216	719	1,556	34,887	12.08	2.06
1979	3,818	631	1,221	38,641	9.88	1.63
1980	3,590	618	1,239	36,402	9.86	1.69
1981	3,500	654	1,282	36,803	9.51	1.78
1982	3,233	591	1,187	32,095	10.06	1.84
1983	3,075	555	1,064	31,048	9.90	1.79
1984	3,010	543	1,039	31,510	9.54	1.72
1985	2,741	498 (R)	952 (R)	30,590	8.95 (R)	1.62 (R)
1986 (R)	2,581	469	955	29,318	8.80	1.60
1987 (P)	2,420	426	788	29,320	8.25	1.45

^a Suicide/sabotage accidents are excluded from rates.

(P) Preliminary.

(R) Revised.

Source: National Transportation Safety Board.

[#]Source of Estimate: Federal Aviation Administration.

TABLE 9.4

AIRCRAFT ACCIDENTS, FATALITIES AND ACCIDENT RATES
 COMMUTER AIR CARRIERS: 1978 - 1987
 (U.S. AIR CARRIERS OPERATING UNDER 14 CFR 135)*
 ALL SCHEDULED SERVICE

	1978	1979	1980	1981	1982	1983	1984	1985	1986 (R)	1987 (P)
Accidents										
Total	61	52	38	31	26	18	22	21 (R)	15	35
Fatal	14	15	8	9	5	2	7	7	2	10
Fatalities	48	66	37	34	14	11	48	37	4	58
Aircraft Hours Flown (000) ¹	1,302	1,170	1,176	1,241	1,200	1,511	1,746	1,737	1,411	1,462
Aircraft Miles Flown (000,000) ¹	226	192	192	193	222	254	291	301	254	263
Departures (000) ¹	1,996	1,384	1,777	1,335	2,027	2,328	2,677	2,561	2,355	2,447
Accident Rate Per 100,000 Hours Flown ²										
Total	4.68	4.44	3.23	2.50	2.00	1.19	1.26	1.21 (R)	1.06	2.39
Fatal	1.08	1.28	0.68	0.73	0.38	0.13	0.40	0.40	0.14	0.68
Accident Rate Per Million Miles Flown ²										
Total	0.27	0.27	0.20	0.16	0.12	0.07	0.08	0.07	0.06	0.13
Fatal	0.06	0.08	0.04	0.05	0.02	0.01	0.02	0.02	0.01	0.04
Accident Rate Per 100,000 Departures ²										
Total	3.06	2.76	2.14	1.95	1.28	0.77	0.82	0.82 (R)	0.64	1.43
Fatal	0.70	0.80	0.45	0.49	0.25	0.09	0.26	0.27	0.08	0.41

* Includes accidents involving all-cargo air carriers when those accidents occurred during scheduled 14 CFR 135 operations. All-cargo air carriers no longer meet the RSPA definition for "Commuters". May also include accidents involving carriers whose FAA operating specifications permit scheduled revenue operations under 14 CFR 135, but who have not received a RSPA fitness determination.

¹ Exposure data estimates from RSPA.

² Rates are based on all accidents including some involving operators not reporting traffic data to the RSPA.

(P) Preliminary.

(R) Revised.

Source: National Transportation Safety Board.

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TABLE 9.5
FATAL ACCIDENTS, FATALITIES--ALL SCHEDULED SERVICE
COMMUTER AIR CARRIERS: 1987
(U.S. AIR CARRIERS OPERATING UNDER 14 CFR 135)
(PRELIMINARY DATA)

Location	Operator	Date	Ser.	Aircraft	Fatalities				Total Aboard	Reported Type of Accident
					Total	Passenger	Crew	Others		
<u>Total</u>					<u>58</u>	<u>41</u>	<u>14</u>	<u>3</u>	<u>84</u>	
Kearns, UT	Sky West	1/15	Psgr	SA-226T	10	6	2	2	6	Midair collision with General Aviation aircraft.
Detroit, MI	Northwest Airlink	3/4	Psgr	CA-212	9	7	2	0	18	Crashed and burned during landing.
Mayaguez, PR	American Eagle	5/8	Psgr	CA-212	2	0	2	0	6	Crashed during landing.
Atlantic Ocean	Aero Coach	5/27	Psgr	C-402	1	0	1	0	1	Failed to arrive at destination, assumed to have crashed at sea.
Crooked Creek, AK	Hermans Air	8/8	Psgr/ Cargo	C-207	1	0	1	0	1	Crashed while maneuvering to delay landing until weather at landing site improved.
Freeport, Bahamas	Caribbean Express	9.26	Psgr	EMB-110	1	0	0	1	10	Ramp agent walked into turning propeller.
Homer, AK	Ryan Air Service	11/23	Psgr	BE-1900	18	16	2	0	21	Crashed on landing, 200 yards short of runway.
Chadron, NE	Regional Express	12/22	Psgr	C-402	2	0	2	0	3	Collided with trees during landing approach.
Kenai, AK	Southcentral	12/23	Psgr	PA-31	6	5	1	0	8	Collided with trees on downwind leg of traffic pattern.
Maunaloa, HI	Panorama Air	12/23	Psgr	PA-31	8	7	1	0	8	Crashed at sea.

TABLE 9.6

1987 AIRLINES
(AIR CARRIERS OPERATING UNDER 14 CFR 121)
ACCIDENTS, FATALITIES, AND RATES
(PRELIMINARY DATA)

	Scheduled	Unscheduled
<u>Accidents</u>		
Total	31	5
Fatal	4	1
<u>Fatalities</u>	231	1
<u>Aircraft Hours Flown (000)</u>	9,711	437
<u>Departures (000)</u>	6,980	216
<u>Accident Rate Per 100,000</u>		
<u>Hours Flown</u>		
Total	0.31	1.14
Fatal	0.03	0.23
<u>Accident Rate Per 100,000</u>		
<u>Departures</u>		
Total	0.43	2.32
Fatal	0.04	0.46

Source: National Transportation Safety Board.

Exposure data estimate source: RSPA and FAA.

TABLE 9.7
ACCIDENTS, FATALITIES AND RATES
AIRLINES: 1978 - 1987
(U.S. AIR CARRIERS OPERATING UNDER 14 CFR 121)
ALL SCHEDULED SERVICE*

	1978	1979	1980	1981	1982	1983	1984	1985	1986(R)	1987(F)
Accidents										
Total	20	23	15	25	15	22	12	17 (R)	20	31
Fatal	5	4	0	4	3	4	1	4	1	4
Total Fatalities	160	351	0	4	233	15	4	197	1	231
Aircraft Hours Flown (000) ¹	6,032	6,713	6,798	6,571	6,440	6,649	7,438	7,947 (R)	9,357	9,711
Aircraft Miles Flown (000,000) ¹	2,520	2,791	2,816	2,703	2,699	2,809	3,133	3,320 (R)	3,726	3,675
Departures (000) ¹	5,016	5,400	5,353	5,212	4,964	5,034	5,446	5,535 (R)	6,440	6,980
Accident Rate Per 100,000 Hours Flown										
Total	0.33	0.34	0.22	0.38	0.23	0.33	0.16	0.21 (R)	0.21	0.31
Fatal	0.08	0.06	0.00	0.06	0.05	0.06	0.01	0.05	0.01	0.03
Accident Rate Per Million Miles Flown										
Total	0.01	0.01	0.01	0.01	0.01	0.01	0.00 ²	0.01	0.01	0.01
Fatal ²	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Accident Rate Per 100,000 Departures										
Total	0.40	0.43	0.28	0.48	0.30	0.44	0.22	0.29 (R)	0.31	0.43
Fatal	0.10	0.07	0.00	0.08	0.06	0.08	0.02	0.07	0.02	0.04

* Includes accidents involving deregulated all-cargo air carriers and commercial operators of large aircraft when those accidents occurred during scheduled 14 CFR 121 operations.

¹ Exposure data estimate source: RSPA.

² Rounded to 0.00.

(R) Revised.

(P) Preliminary.

NOTE: Sabotage accident occurring 8/11/82 is included in all computations except rates.

TABLE 9.8

ACCIDENTS, FATALITIES, AND RATES
ON-DEMAND AIR TAXIS: 1978 - 1987
(U.S. AIR CARRIERS OPERATING UNDER 14 CFR 135)
NONSCHEDULED OPERATIONS

Year	Number Of Accidents		Total Fatalities	Aircraft Hours Flown ¹ (000)	Accident Rate Per 100,000 Aircraft Hours	
	Total	Fatal			Total Accidents	Fatal Accidents
1978	198	54	155	3,546	5.58	1.52
1979	160	30	77	3,684	4.34	0.81
1980	171	46	105	3,618	4.73	1.27
1981	157	40	94	2,896	5.42	1.38
1982	132	31	72	3,257	4.05	0.95
1983	140	27	62	2,575	5.44	1.05
1984	146	23	52	3,079	4.74	0.75
1985	152	35	76	2,783	5.46	1.26
1986 (R)	117	32	67	2,913	4.02	1.10
1987 (P)	98	31	68	2,900	3.38	1.07

¹ Source of Estimate: FAA.

(P) Preliminary.

(R) Revised.

Source: National Transportation Safety Board.

X. AERONAUTICAL PRODUCTION AND IMPORTS/EXPORTS

The aircraft production information presented in this chapter was obtained from the Bureau of Census: Complete Aircraft Plant Report (Form M37C). The shipment data shows the number of civil aircraft shipped by the United States manufacturers and includes both aircraft shipped within the United States and those exported.

Import and export data were obtained from the Aerospace Industries Association of America, Inc. and were based on Bureau of the Census data from special monthly compilation of Annual Reports 246 and 446, respectively.

TABLE 10.1

TOTAL CIVIL AIRCRAFT PRODUCTION, WEIGHT, AND COST
CALENDAR YEARS 1978 - 1987

Calendar Year	Number of Aircraft	Airframe Weight (000 lbs.)	Value Complete Aircraft (\$000)	Average Complete Aircraft Cost
1978	17,397	52,060	\$8,208,728	\$471,847
1979	17,924	77,327	11,047,147	616,333
1980	11,777	97,068	13,043,076	1,107,504
1981	10,114	89,076	13,195,029	1,304,630
1982	4,053	44,383	8,639,782	2,131,700
1983	2,784	44,936	9,915,761	3,561,696
1984	2,635	33,450	7,911,543	3,002,483
1985	2,457	40,872	10,939,831	4,452,516
1986 (R)	2,888	NA	12,517,992	4,334,485
1987 (P)	2,315	NA	12,295,019	5,311,023

(P) Preliminary.

(R) Revised.

NA No longer available

Source: U.S. Department of Commerce, Bureau of the Census, Industry Division.

TABLE 10.2
NUMBER OF SHIPMENTS OF COMPLETE CIVIL AIRCRAFT
1978 - 1987

Item	1987(P)	1986(R)	1985	1984	1983	1982	1981	1980	1979	1978
Total	2,315	2,888	2,842	3,028	3,217	4,669	11,067	13,130	17,924	18,882
Fixed Wing										
Single Engine	1,512	1,858	2,457	2,635	2,784	4,055	10,114	11,777	16,883	18,049
Multiengine	NA	NA	1,551	1,578	1,697	2,546	6,825	8,175	13,044	14,382
	NA	NA	906	1,057	1,087	1,509	3,289	3,602	3,839	3,667
Rotorcraft	360	493	385	393	433	614	953	1,353	1,041	833
Other	443	537	NA	NA	NA	NA	NA	NA	NA	NA

NOTE: Other includes balloons, dirigibles, airships, gliders, sailplanes, and aircraft sold in kits (except hang gliders).

(R) Revised.
(P) Preliminary Data.
NA Not available

Source: "Current Industrial Reports: Complete Aircraft and Aircraft Engines," M37C-13; Department of Commerce, Bureau of the Census.

TABLE 10.3

NUMBER OF U.S. IMPORTS OF AEROSPACE PRODUCTS
1978 - 1987

	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
Aircraft Used or Rebuilt, Civil	115	141	246	223	181	186	160	100	97	93
Helicopters, Civil	98	87	60	61	100	184	213	177	91	78
Aircraft, Single-Engine, Civil	41	71	46	21	6	23	9	6	3	6
Aircraft, Multiengine Under 4,400 lbs., Civil	1	18	8	33	18	13	2	6	5	47
Aircraft, Multiengine, 4,400 to 10,000 lbs., Civil	101	58	46	58	52	87	123	119	86	87
Aircraft, Multiengine, 10,000 to 33,000 lbs., Civil	155	150	103	95	93	159	218	156	102	50
Aircraft, Multiengine, Over 33,000 lbs., Civil	22	36	29	12	7	8	8	16	9	5
Balloons, and Airships, Civil	0	0	0	0	0	0	0	0	0	0
Gliders, Civil	117	181	628	448	229	200	119	73	---	---

Source: Aerospace Industries Association, Inc. based on Bureau of Census data from special monthly
compilation of Annual Report, FT-410.

TABLE 10.4

NUMBER OF U.S. EXPORTS OF AEROSPACE PRODUCTS
1978 - 1987

	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
Aircraft Used or Rebuilt, Civil	969	494	277	304	224	242	501	494	578	449
Aircraft Helicopter, New, Under 2200 lbs., Civil	129	104	68	155	141	162	268	335	294	243
Aircraft, Helicopter, New, Over 2200 lbs., Civil	152	106	69	78	75	92	185	190	165	125
Aircraft, Single-Engine New Civil	307	220	334	271	279	539	1,800	2,172	2,821	2,640
Aircraft, Multiengine, New, Under 4400 lbs., Civil	51	63	66	53	106	167	371	546	645	455
Aircraft, Multiengine, New, Over 4400 lbs., Under 10,000 lbs., Civil	127	93	65	83	117	209	426	432	360	339
Aircraft, Multiengine, New, Over 10,000 lbs., Under 33,000 lbs., Civil	24	38	19	18	22	25	20	28	52	37
Aircraft, Passenger, New, Over 33,000 lbs., Civil	160	149	140	77	122	110	236	215	172	99
Aircraft, Cargo, New, Over 33,000 lbs., Civil	4	2	6	3	2	6	7	8	13	3
Aircraft Other, New, Over 33,000 lbs., Including Combinations, Civil	6	8	6	3	5	5	12	14	15	9
Aircraft Other, New, Including Balloons, Gliders & Kites, Civil	0	0	0	0	0	0	0	0	0	0

Source: Aerospace Industries Association, Inc. based on Bureau of Census data from special monthly
compilation of Annual Report, FT-446.

COMMON ACRONYMS

AAS	Airport Advisory Service
ADF	Automatic Direction Finder
ARSR	Air Route Surveillance Radar
ARTCC	Air Route Traffic Control Center
ASR	Airport Surveillance Radar
ATC	Air Traffic Control
ATCT	Airport Traffic Control Tower
CAB	Civil Aeronautics Board
DME	Distance Measuring Equipment
DVFR	Defense Visual Flight Rules
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FSS	Flight Service Station
ICAO	International Civil Aviation Organization (Montreal, Canada)
IFR	Instrument Flight Rules
IFSS	International Flight Service Station
ILS	Instrument Landing System
LDA	Landing Directional Aid
LRNAV	Long Range Navigation
MLS	Microwave Landing System
NAS	National Airspace System
NAVAIDS	Navigation Aids
NOTAMS	Notice to Airmen
NTSB	National Transportation Safety Board
RNAV	Area Navigation
RSPA	Research and Special Programs Administration
VFR	Visual Flight Rules
VHR	Very High Frequency
VOR/VORTAC	Very High Frequency Omnidirectional Radio Range

GLOSSARY

Active Aircraft--All legally registered civil aircraft which flew one or more hours.

Aerial Application--See Primary Use.

Aerial Observation--See Primary Use.

Air Carriers--The commercial system of air transportation consisting of the certificated air carriers, air taxis (including commuters), supplemental air carriers, commercial operators of large aircraft, and air travel clubs.

- o Certificated air carrier--An air carrier holding a Certificate of Public Convenience and Necessity issued by DOT to conduct scheduled services interstate. Nonscheduled or charter operations may also be conducted by these carriers. These carriers operate large aircraft (30 seats or more or a maximum payload capacity of 7,500 pounds or more) in accordance with FAR Part 121.
- o Air taxi--A classification of air carriers which transports in accordance with FAR part 135 persons, property, and mail using small aircraft (under 30 seats or a maximum payload capacity of less than 7,500 pounds).
- o Commuter air carrier--an air taxi operator which performs at least five round trips per week between two or more points and publishes flight schedules which specify the times, days of the week, and points between which such flights are performed.
- o Supplemental air carrier (Charter)--An air carrier which holds Certificates of Public Convenience and Necessity issued by the DOT, authorizing performance of passenger and cargo interstate charter services supplementing the scheduled service of the certificated air carriers. The authority of supplemental air carriers to engage in military charters is of an indefinite period. In addition, they can perform on an emergency basis, as may be authorized by the DOT, scheduled operations including the transportation of individually ticketed passengers and individually waybilled cargo.
- o Commercial operator--a person who for compensation or hire engages in the intrastate carriage of aircraft in air commerce of persons or property other than as an air carrier or foreign air carrier.
- o Commercial operator of large aircraft--commercial operator operating aircraft with 30 seats or more or a maximum payload capacity of 7,500 pounds or more.

Aircraft Accident--As defined by the National Transportation Safety Board, it is "an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, and in which any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto, or in which the aircraft receives substantial damage."

- o Fatal Injury means any injury which results in death within 7 days of the accident.
- o Operator means any person who causes or authorizes the operation of an aircraft, such as the owner, leasee, or bailee of an aircraft.
- o Serious Injury means any injury which (1) requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received; (2) results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (3) involves lacerations which cause severe hemorrhages, nerve, muscle, or tendon damage; (4) involves injury to any internal organ; (5) involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.
- o Substantial damage:

(1) Except as described below, substantial damage means damage or structural failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component.

Exceptions: engine failure, damage limited to an engine, bent fairings or cowlings, dented skin, small puncture holes in the skin or fabric, ground damage to rotor or propeller blades, damage to landing gear, wheels, tires, flaps, engine accessories, brakes or wingtips are not considered substantial for the purpose of this part.

Aircraft Contact--Aircraft with which the flight service stations (FSS) have established radio communications contact. One count is made for each enroute, landing, or departing aircraft contacted by an FSS regardless of the number of contacts made with an individual aircraft during the same flight. A flight contacting five FSS's would be counted as five aircraft contacted.

Aircraft Handled--See IFR Aircraft Handled.

Aircraft Type--A term used in this publication in grouping aircraft by basic configuration--fixed-wing, rotorcraft, glider, dirigible, and balloon.

Air Defense Identification Zone--The area of airspace over land or water within which the ready identification, the location, and the control of aircraft are required in the interest of national security.

Airline Transport Pilot--See Pilot.

Airman--A pilot, mechanic, or other licensed aviation technician.

Airman Certificate--A document issued by the Administrator of the Federal Aviation Administration certifying that the holder complies with the regulations governing the capacity in which the certificate authorizes the holder to act as an airman in connection with aircraft.

Airport--An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

Airport Advisory Service (AAS)--A service provided by flight service stations at airports not served by a control tower. This service consists of providing information to landing and departing aircraft concerning wind direction and velocity, favored runway, altimeter setting, pertinent known traffic, pertinent known field conditions, airport taxi routes and traffic patterns, and authorized instrument approach procedures.

Airport Operation--an aircraft takeoff or landing. There are two types of operations--local and itinerant.

- o Local operations are performed by aircraft which:
 - (a) Operate in the local traffic pattern or within sight of the airport.
 - (b) Are known to be departing for, or arriving from, flight in local practice areas within a 20-mile radius of the airport.
 - (c) Execute simulated instrument approaches or low passes at the airport.
- o Itinerant operations are all airport operations other than local operations.

Airport Traffic--Aircraft operating in the air or on an airport surface exclusive of loading ramps and parking areas.

Airport Traffic Control Service--Air traffic control service provided by an airport traffic control tower for aircraft operating on the movement area and in the vicinity of an airport.

Airport Traffic Control Tower (ATCT)--A central operations facility in the terminal air traffic control system, which consist of a tower cab structure, including an associated IFR room if radar equipped, and uses air/ground communications, radar, visual signaling, and other services to provide safe and expeditious movement of terminal air traffic.

Airports Grants-in-Aid Program--A grant of funds by the Secretary of Transportation under the Airport & Airway Improvement Act of 1982 to a sponsor for the accomplishment of one or more projects.

- o Project--Projects (or separate projects submitted together) for the accomplishment of airport development or airport planning, including the combined submission of all projects which are to be undertaken at an airport in a fiscal year.
- o Sponsor--Any private owner of a public-use air OR any public agency (either individually or jointly with other public agencies) that submit to the Secretary of Transportation, in accordance with the Airport & Airway Improvement Act of 1982, an application for financial assistance.
- o Primary Airports--A commercial service airport which is determined to have .01 percent or more of the total number of passengers enplaned annually at all commercial service airports.
- o Commercial Airports--(also known as commercial service airports)--A public airport which is determined to enplane annually 2,500 or more passengers and receive scheduled passenger service of aircraft.
- o Reliever Airports--An airport designated as having the function of relieving congestion at a commercial service airport and providing more general aviation access to the overall community.
- o General Aviation Airports--(also known as public airports)--Any airport which is used or to be used for public purposes, under the control of a public agency, the landing area of which is publicly owned.
- o System Planning--(also known as integrated airport system planning)--The initial, as well as continuing development for planning purposes of information and guidance to determine the extent, type, nature, location, and timing of airport development needed in a specific area to establish a viable balanced, and integrated system of public-use airports.

Airports of Entry--Aircraft may land at these airports without prior permission to land from U.S. Customs.

Air Route Traffic Control Center (ARTCC)--A facility established to provide air traffic control service to aircraft operating on IFR flight plans within controlled airspace, and principally during the enroute phase of flight.

Air Taxi--See Air Carrier and Primary Use.

Air Traffic Control (ATC)--A service operated by appropriate authority to promote the safe, orderly, and expeditious flow of air traffic.

Air Traffic Control Facility--A facility which provides air traffic control services located in the U.S., its possessions and territories, and in foreign countries especially established by international agreement.

Air Traffic Hub--Air traffic hubs are not airports; they are the cities or twin cities requiring aviation services. The hubs fall into four classes as determined by each community's percentage of the total enplaned passengers all services and all operations U. S. certificated air carriers in the 50 States, the District of Columbia, and other U.S. areas.

- o Large air traffic hub--a community enplaning 1.00 percent or more of the total enplaned passengers.
- o Medium air traffic hub--a community enplaning from 0.25 to 0.99 percent of the total enplaned passengers.
- o Small air traffic hub--a community enplaning from 0.05 to 0.24 percent of the total enplaned passengers.
- o Nonhub--a community enplaning less than 0.05 percent of the total enplaned passengers.

All-Cargo Carrier (418)--One of a class of air carriers holding an All Cargo Air Service Certificate issued under section 418 of the Federal Aviation Act and certificated in accordance with FAR part 121 to provide domestic air transportation of cargo.

American Flag Carrier--See U.S. Flag Carrier.

Approach Control Facility--A terminal area traffic control facility providing approach control service.

Approach Control Service--Air traffic control service provided by an approach control-facility for arriving and departing aircraft and, on occasion, tower enroute control service.

Business Transportation--See Primary Use.

Carrier Group--A grouping of certificated air carriers determined by annual operating revenues as shown below:

<u>Carrier Group</u>	<u>Annual Operating Revenues</u>
Majors	\$1,000,000,000+
Nationals	\$75,000,000 - \$1,000,000,000
Large regionals	\$10,000,000 - \$74,999,999
Medium regionals	0 - \$9,999,999 or that operate aircraft with 60 or less seats or maximum payload capacity of 18,000 lbs.

Certificated Route Air Carrier--See Air Carrier.

Commercial Operator--See Air Carrier.

Commercial Pilot--See Pilot.

Commuter Air Carrier--See Air Carrier.

Defense Visual Flight Rules (DVFR)--A flight within an Air Defense Identification Zone conducted under the visual flight rules in Federal Aviation Regulation, Part 99.

Domestic Operations--In general, operations within and between the 50 States, and the District of Columbia.

Executive Transportation--See Primary Use.

Flight Plan--Specified oral or written information about the intended flight of an aircraft that is filed with air traffic control.

Flight Service Station (FSS)--Air traffic Service facilities within the National Airspace System (NAS) which provide preflight pilot briefings and en route communications with VFR flights, assist lost IFR/VFR aircraft, assist aircraft having emergencies, relay Air Traffic Control clearances, originate, classify, and disseminate Notices to Airmen, broadcast aviation weather and NAS information, receive the close flight plans, monitor radio NAVAIDS, notify search and rescue units of missing VFR aircraft, and operate the national weather teletypewriter system. In addition, at selected locations, FSSs take weather observations, issue airport advisories, administer airmen written examinations, and advise Customs and Immigration of across-the-border flights.

Flight Services--The sum of flight plans originated and pilot briefs, multiplied by two, plus the number of aircraft contacted. See tables 2.6 and 2.14.

Foreign Flag Air Carrier--An air carrier other than a U.S. flag air carrier engaged in international air transportation (see also U.S. Flag Carrier).

Foreign Mail--Mail transported outside the United States by U.S. flag carriers for a foreign government.

General Aviation--That portion of civil aviation which encompasses all facets of aviation except air carriers.

Heliport--An area of land, water, or any structure used or intended to be used for the landing and takeoff of helicopters.

Hub--See Air Traffic Hub.

IFR Aircraft Handled--The number of IFR departures multiplied by two plus the number of IFR overs. This definition assumes that the number of departures (acceptances, extensions, and originations of IFR flight plans) is equal to the number of landings (IFR flight plans closed).

IFR Departure--An IFR departure includes IFR flights originating in center's area, accepted by the center under SOLE EN ROUTE clearance procedures, and extended by the center.

IFR Over--An IFR flight that originates outside the AETCC area and passes through the area without landing.

Inactive Aircraft--All legally registered civil aircraft which flew zero hours.

Instructional Flying--See Primary Use.

Instrument Approach--An approach to an airport, with intent to land, by an aircraft flying in accordance with an IFR flight plan, when the visibility is less than 3 miles and/or when the ceiling is at or below the minimum initial altitude.

Instrument Flight Rules (IFR)--Rules governing the procedures for conducting instrument flight. Also a term used by pilots and controllers to indicate type of flight plan.

Instrument Landing System (ILS)--A precision instrument approach system which normally consists of the following electronic and visual aids:

- o Localizer--Provides course guidance to the runway.
- o Clide Slope--Provides vertical guidance during approach.
- o Marker Beacon--Provides aural and/or visual identification of a specific position along an instrument approach landing.

Instrument Operation--An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility or air route traffic control center.

International Flight Service Station (IFSS)--A central operations facility in the flight advisory system, staffed and equipped to control aeronautical point-to-point telecommunications, and air-ground telecommunications with pilots operating over international territory or waters, which provides flight plan following, weather information, search and rescue action, and other flight assistance operations.

International Operations--In general, operations outside the territory of the U.S., including operations between the U.S. and foreign countries, and the U.S. and its territories or possessions. Includes both the combination passenger/cargo carrier and the all-cargo carriers engaged in international and territorial operations.

Itinerant Operation--See Airport Operation.

Jet Route--A route designed to serve aircraft operations from 18,000 feet to 45,000 feet.

Landing Rights Airports--Any aircraft may land at one of these airports after securing prior permission to land from U.S. Customs.

Large Air Traffic Hub--See Air Traffic Hub.

Large Regional Carrier--See Carrier Groups.

Large Certificated Air Carrier--Carrier holding a certificate issued under section 401 of the Federal Aviation Act of 1958 and operating aircraft designed to have a maximum passenger seating capacity of more than 60 seats or a maximum payload capacity of more than 18,000 pounds, or conducting international operations.

Local Operation--See Airport Operation.

Major Carriers--See Carrier Groups.

Medium Air Traffic Hub--See Air Traffic Hub.

Medium Regional Carrier--See Carrier Groups.

Microwave Landing System (MLS)--An instrument landing system operating in the microwave spectrum which provides lateral and vertical guidance to aircraft having compatible avionics equipment.

National Carriers--See Carrier Groups.

Nonhub--See Air Traffic Hub.

Notice to Airmen--A notice containing information concerning the establishment, condition or change in any component of, or hazard in the National Airspace System, the timely knowledge of which is essential to personnel concerned with flight operations.

Other--See Primary Use.

Other Work Use--See Primary Use.

Over--See IFR Over.

Personal Flying--See Primary Use.

Pilot--

- o Student Pilot--A student pilot may not operate an aircraft that is carrying a passenger or that is carrying property for compensation or hire.
- o Private Pilot--A private pilot may not act as a pilot-in-command of aircraft that is carrying passengers for compensation or hire nor act as pilot-in-command in an aircraft that is being operated for compensation or hire (e. g.; one that has been hired to do pipeline patrol but carries no passengers.)

- o Commercial Pilot--A commercial pilot may act as pilot-in-command of an aircraft carrying passengers for compensation or hire and act as pilot-in-command in an aircraft that is being operated for compensation or hire (e. g.; one that has been hired to do pipeline patrol but carries no passengers.)
- o Airline Transport Pilot--An airline transport pilot may act as a pilot-in-command of an aircraft engaged in air carrier service.

Pilot Briefing--Information furnished a pilot to assist in flight planning. Principal items are weather conditions, notices to airmen, routes, and preparation and handling of the flight plan.

Primary Use--The use category in which an aircraft flew the most hours. The eleven use categories are defined below:

- o Aerial Application--Any use of an aircraft for work purposes which concerns the production of foods, fibers, and health control in which the aircraft is used in lieu of farm implements or ground vehicles for the particular task accomplished. This includes firefighting operations, the distribution of chemicals or seeds in agriculture, reforestation, or insect control.
- o Aerial Observation--Any use of an aircraft for aerial mapping/photography, survey, patrol, fish spotting, search and rescue, hunting, highway traffic advisory, or sightseeing; not included under Part 135.
- o Commuter Air Carrier--An air taxi that performs at least five scheduled round trips per week between two or more points or carries mail.
- o Demand Air Taxi--Use of an aircraft operating under Federal Aviation Regulations, Part 135, passenger and cargo operations, including charter and excluding commuter air carrier.
- o Business Transportation--Use of an aircraft not for compensation or hire by individuals for the purposes of transportation required by business in which they are engaged.
- o Executive/Corporate Transportation--Any use of an aircraft by a corporation, company, or other organization for the purposes of transporting its employees and/or property not for compensation or hire, and employing professional pilots for the operation of the aircraft.
- o Instructional Flying--Any use of an aircraft for the purpose of formal instruction with the flying instructor aboard, or with the maneuvers on the particular flight(s) specified by the flight instructor; excludes proficiency flying.
- o Personal Flying--Any use of an aircraft for personal purposes not associated with a business or profession, and not for hire. This includes maintenance of pilot proficiency.

- o Rental Aircraft--Aircraft owned for the purpose of renting; commercial flying club, leased, and rental aircraft activity.
- o Other Work Use Any aircraft used for construction work (not included under Part 135), helicopter, hoist, towing gliders, or parachuting.
- o Other--Any other use of an aircraft not included above. (Example: experimentation, R&D; testing, demonstration, government).

Private Pilot--See Pilot.

Private-Use Airport: An airport which is not open for the use of the general public.

Privately Owned Airport--An airport which is owned by a private individual or corporation.

Public-Use Airport--An airport open to for public use without prior permission, and without restrictions within the physical capacities of available facilities. May or may not be publicly owned.

Publicly Owned Airport--An airport which is publicly owned and under control of a public agency.

Radar Altimeter--Aircraft instrument that makes use of the reflection of radio waves from the ground to determine the height of the aircraft above the surface.

Rental Aircraft--See Primary Use.

Small Air Traffic Hub--See Air Traffic Hub.

Small Certificated Air Carrier--Carrier holding a certificate issued under section 401 of the Federal Aviation Act of 1958 and operating aircraft designed to have a maximum seating capacity of 60 or less seat or a maximum payload of 18,000 pounds or less.

Stolport--An airport specifically designed for STOL (Short Take-off and Landing) aircraft, separate from conventional airport facilities.

Student Pilot--See Pilot.

Supplementat Air Carrier--See Air Carrier.

Terminal Area--A general term used to describe airspace in which approach control service or airport traffic control service is provided.

Tower--See Airport Traffic Control Tower.

U.S. Flag Carrier or American Flag Carrier--One of a class of air carriers holding a Certificate of Public Convenience and Necessity issued by the DOT, approved by the President, authorizing scheduled operations over specified routes between the United States (and/or its territories) and one or more foreign countries. (See also Foreign Flag Air Carrier.)

VFR Flight--Flight conducted in accordance with Visual Flight Rules.

VHF Communications--Provides radio voice communications between aircraft and ground stations, also between aircraft. Very high Frequency (VHF) is limited in range (line of sight) and usually used for air traffic communications.

VOR--Very high frequency omnidirectional radio range. Used as the basis for navigation in the national Airspace System.

VORTAC--A navigation aid providing azimuth and distance measuring equipment as one site.